

MILWAUKEE AREA TECHNICAL COLLEGE



# MATC

2025-26 CATALOG







**AN MATC  
EDUCATION  
MAKES MORE  
POSSIBLE.**





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*This catalog was prepared according to information current as of March 4, 2025. All information is subject to change.*



## MAKING MORE POSSIBLE

# Here's How You Get There

Whether you're a high school student about to graduate or a working adult with young children who dreams of a career change, MATC has a path for you. With affordable tuition, a vast array of programs to choose from (more than 180) and the support to overcome challenges you may face, MATC sets you up to succeed from day one. Every year, more than 30,000 students choose MATC.

## MATC MAKES IT HAPPEN

The college works with local industry and business partners to keep existing programs up-to-date and develop new programs that meet workforce needs. And, MATC has programs to empower and uplift everyone, from teens who want a head start in college to working adults who want to brush up on basic skills. Here is a list of what MATC offers:

- Associate Degrees
- Technical Diplomas
- Certificates
- Digital Badges
- Bilingual Programs
- Continuing Education
- High School Credits and HSED/GED
- Adult High School
- Dual Credit
- English as a Second Language
- Professional Development

## WE'RE HERE TO SUPPORT YOU

With bilingual services, tutoring, academic advising, career counseling and employment services, MATC can help you reach your goals. Find more information about these services, starting on page 18.

### START DATES FOR 2025-26

**SUMMER SESSION**  
week of June 8, 2025

**FALL SEMESTER**  
week of August 17, 2025

**SPRING SEMESTER**  
week of January 18, 2026

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### HOW TO APPLY

**ONLINE**  
[matc.edu/apply](https://matc.edu/apply)

### IN PERSON AT ANY CAMPUS

You'll find computer stations for completing applications for admission, financial aid and registration. Our team will be ready to help.



## LOCATIONS

### Downtown

**Milwaukee Campus**  
700 West State Street  
Milwaukee, WI 53233

**MATC Education Center at Walker's Square**  
816 West National Avenue  
Milwaukee, WI 53204

**Mequon Campus**  
5555 West Highland Road  
Mequon, WI 53092

**Oak Creek Campus**  
6665 South Howell Avenue  
Oak Creek, WI 53154

**Online Campus**  
onlinelearning@matc.edu

**West Allis Campus**  
1200 South 71st Street  
West Allis, WI 53214



## CONTACT INFORMATION

### MATC.EDU

Find detailed information about programs and student support services.

### MATC.EDU/ES

Explore our website in Spanish.

**414-297-MATC (6282)**

Wisconsin Relay System 711

**Find Us on Social Media**



## FLEXIBLE COURSE FORMATS

Because many students are juggling full-time jobs and family, MATC offers eight-, 12- or 16-week courses weekdays, evenings and weekends in person and online. To learn more about a course's format, search for the course in the **Self-Service catalog at [selfservice.matc.edu](https://selfservice.matc.edu)**. Courses are offered:

### In Person

Courses are held face-to-face at our campuses or educational sites. Attendance is required.

### Online

The course is offered entirely online.

### Partially Online

The course is taught with a mix of online and in-person offerings. If more than half of a class is in-person, it's called blended. If more than half is online, it's called hybrid. And for HyFlex courses, students choose how to attend.



I always had a passion. With maturity and help from great instructors, I tapped into that passion to realize my potential.”

**DIEGO SANCHEZ,**  
Diesel and Powertrain  
Servicing graduate



### MISSION

Education that transforms lives, industry and community

### VISION

The best choice in education, where everyone can succeed

### VALUES

Empowerment, Inclusion, Innovation, Integrity, Respect



## CREDENTIALS

# Degrees for Every Goal

Students come to MATC to save time and money as they train for a career or earn credits toward a bachelor's degree. The college offers a variety of credentials in 180+ programs: associate degrees,

technical diplomas and certificates, plus digital badges. Each helps you reach your goals. Read below and find the credential for you.



\*Full-time students



## COMMUNITY LEARNING

# MATC Offers Even More

Maybe you want to get your high school diploma, brush up on basic skills, learn English or just enjoy a class? MATC has programming to help you do it all.



### FINISH HIGH SCHOOL

#### GET CAUGHT UP

A high school diploma or GED certificate is a requirement for admission to most of the college's academic programs. If life got in the way of finishing high school, MATC can help. See page 314 for details about Community Education programs.



### COMMUNITY MEMBERS

#### TAKE A CLASS

Anyone can just take a class at MATC without earning a credential (though you won't be eligible for financial aid). Complete a Non-Program Student application and register for the classes you want to take. Visit [matc.edu](https://matc.edu) (search Take a Class)



### CURRENTLY IN HIGH SCHOOL

#### GET A HEAD START ON COLLEGE

High school students can earn credit toward their graduation and a college credential through dual credit programs. See page 9 for details.



### COMMUNITY MEMBERS

#### AUDITING COURSES

Take a class without the pressure of homework or exams. Please note that audited courses aren't for credit and aren't eligible for financial aid or veterans benefits.

#### Wisconsin residents

**60 years or older** may audit some courses on a space-available basis for free (tuition is waived, but you must pay for fees and materials). To find out which courses can be audited, email [register@matc.edu](mailto:register@matc.edu).



### WORKING ADULTS

#### PROFESSIONAL DEVELOPMENT

Keep your employees and their skills on the cutting edge by bringing MATC's training programs to your organization at times that fit your schedule through Workforce Solutions.

#### Services include:

- Customized Training Program and Curriculum Development
- Certifications
- Workforce Advancement Training (WAT) Grants

[matc.edu/workforcesolutions](https://matc.edu/workforcesolutions)

### COMMUNITY MEMBERS

#### LEARN ENGLISH

Want to learn English at times that work for you? MATC offers classes in the morning, afternoon and evening at the college and through community-based organizations (CBOs) throughout Milwaukee. Options include both in-person and virtual formats to meet diverse needs. See page 315 for more information.



## NEW STUDENTS

# How To Apply

### 1. Fill Out Your Application

Go to [matc.edu/apply](https://matc.edu/apply) or visit any **MATC campus**. In order to apply you must:

- Choose a program when you fill out your application (see pages 10-11 for a complete list of programs) or choose Undecided (see page 7 for details).
- Have a high school diploma or GED equivalency certificate to enter a program (there are only a few exceptions). If you have to finish high school or take courses to fulfill a program's academic preparedness requirements, MATC can help (learn more on page 314).
- Pay a \$2 processing fee that helps MATC verify your identity.

### 2. Watch for Your Acceptance Letter via Email

### 3. Submit Transcripts

While you wait for your acceptance email, send in your transcript — it doesn't have to be an official one. The transcript is essential because it helps advisors place you in the right courses. (Note: International students are still required to submit a translated transcript that has been evaluated by an approved agency.)

Some programs, however, require an official high school transcript before a student can take core courses. Visit [matc.edu/course-catalog](https://matc.edu/course-catalog) or look at the program's page in this catalog to find out your program's requirements. If an official transcript is required, you will send us one or more of the following, depending on your experience:

- Official high school transcripts with graduation date from a regionally accredited institution
- GED/HSED diploma (submit scores if available)
- Homeschool PI-1206 form and detailed transcript
- College/university transcript
- International transcripts

#### How To Submit Your Transcript

- **Electronically via Parchment:** Send to [apply@matc.edu](mailto:apply@matc.edu)
- **By Mail:** 700 W. State Street, Milwaukee, WI 53233, ATTN: Admissions
- **In Person:** Drop off a **sealed** transcript at any MATC Admissions Center. **Do not open the envelope.**

### 4. Financial Aid

Apply for federal financial aid as early as possible. Learn how on page 8.

#### Waiting Lists

When there are more applicants than spots available in a program, MATC puts students on a waiting list. To get off the list as spots open up, students must meet all academic preparedness requirements specific to their program. While students are on the list, they can enroll in a program's general studies courses, such as English and math, and stay on track to graduate.

Learn more about any program's specific admission process, academic requirements and other requirements by visiting [matc.edu/course-catalog](https://matc.edu/course-catalog) or by reading the program's overview in this catalog. Overviews begin on page 25.

## OTHER REQUIREMENTS

### Returning Students Applying for Readmission

If you have taken a break from your program (more than two semesters, not including summer), then you must apply for readmission. Complete a program readmission application online at [matc.edu](https://matc.edu) (search Returning Students). You will follow the program requirements in effect at the time of your readmission. If the program you are reapplying to has a waiting list, you may have to join that list.

### Health and Criminal Background Check

Health and criminal background checks are required for some programs and courses. Agencies who serve as clinical or field placement sites reserve the right to deny a student's placement based upon health and/or criminal background check results. See information on a program's webpage at [matc.edu](https://matc.edu).

### International Students

MATC welcomes international students! Those who plan to apply for a student visa should visit [matc.edu](https://matc.edu) (search International Students). You also may write to:

Milwaukee Area  
Technical College  
International Student  
Admissions Office  
1200 South 71st Street,  
Room 120  
West Allis, WI 53214

## NEW STUDENTS

# Orientation and Registration

Congratulations! Now that you've committed to MATC, there are a few tasks to complete before you can start classes: setting up your online Self-Service account and planning for orientation and registration.

### 1. Create Your Self-Service Account

Self-Service helps you access key college services and stay connected. Here's how you sign up for an account:

- Visit [selfservice.matc.edu](https://selfservice.matc.edu) and click "Forgot your username?" Your username will be sent to the email account you used when you applied.
- Enter your username at [selfservice.matc.edu](https://selfservice.matc.edu). On the next form, enter your MATC email address.
- Change your password. Your default password begins with Sp23\$ and ends with the month and day of your birth. For example, if your day of birth is August 3, the default password is: Sp23\$0803

### 2. Complete the New Student Orientation

Attending the online New Student Orientation is required before you can attend Express Enrollment. Visit [go2orientation.com/matc](https://go2orientation.com/matc) and log in using your MATC email address and password. Learn about the college, its academic programs, services, student resources and policies.

### 3. Register for Classes at Express Enrollment or Registration Jam

Sign up for a required Express Enrollment or, for high school seniors, Registration Jam. At these events, you will meet academic advisors, register for classes and get help applying for financial aid, if needed.

### 4. Pay for Classes

Create a payment plan at [selfservice.matc.edu](https://selfservice.matc.edu) and choose Student Finance. For more information, please see Payment Options on page 12.



## UNDECIDED STUDENTS

Picking a Pathway and a program (we have 180+) is an important step in your education at MATC.

Career coaches in the college's CareerHub help undecided students make that decision. Here are some tips from Nutan Amrute (above) and her career-coaching team:

1. Connect with your career coach today to start the career-planning process and enter your preferred program!
2. Before meeting with your coach, get to know yourself. How do you like to spend your time? Convert your passion into a career!
3. Take it a step further and make a list of the skills you currently have and the jobs you've had and loved.
4. Research careers you are curious about and bring your thoughts and questions to your meeting with a career coach.
5. Take career assessments — a career coach at MATC can help!
6. Ask questions! It is perfectly fine to admit when you don't know something or if something doesn't make sense. Career coaches help break things down.

### Questions? Connect with a career coach!

[careercoaching@matc.edu](mailto:careercoaching@matc.edu)  
414-297-6244



# Pay for College

MATC delivers a high-quality education at a fantastic price, and the college works to make it affordable for students in the Milwaukee area through financial aid and scholarships for eligible students.

## APPLY FOR FINANCIAL AID

In order to receive financial aid, you must be admitted to an MATC associate degree or technical diploma program before the admission application deadline. Here's how you apply for financial aid:

### 1. Create a StudentAid.gov Account

Go to [studentaid.gov/fsa-id/create-account](https://studentaid.gov/fsa-id/create-account). All FAFSA contributors must have a **StudentAid.gov** account to access the online form. A contributor could be your parent, stepparent or spouse. Contributors will receive an email if the FAFSA determines their information is needed. Contributors are not financially responsible to pay for school, but their information is required.

### 2. Gather All Required FAFSA Information

Collect your 2023 Federal Tax Return. If you're a dependent, you'll need your parents' Social Security numbers and dates of birth to invite them as contributors.

### 3. Complete Your FAFSA Form

Go to [fafsa.gov](https://fafsa.gov), select "Start New Form" and enter your **StudentAid.gov** account username and password (FSA ID). The MATC federal school code is 003866. FAFSA tips can be found at [studentaid.gov/announcements-events/fafsa-support/pro-tips](https://studentaid.gov/announcements-events/fafsa-support/pro-tips).

### 4. Sign the FAFSA

You (and your contributors) will agree to the FAFSA certification statement and sign the application. You can then submit your section of the FAFSA. All contributors must provide their information, give consent to transfer federal tax information and sign the form.

### 5. View Your FAFSA Submission Summary

Check the status of your FAFSA, make sure the form has been submitted and review the FAFSA Submission Summary on **StudentAid.gov**.

### 6. Review Your Financial Aid Offer on Self-Service

You can review your offered financial aid and next steps on your Self-Service account at [selfservice.matc.edu](https://selfservice.matc.edu).

## FINANCIAL AID CONTACT

The Financial Aid office is here to help!

For in-person assistance, visit these locations:

**Downtown Milwaukee Campus**, S Building, Room S110

**Mequon Campus**  
Room A110

**Oak Creek Campus**  
Room A106

**West Allis Campus**  
Room 120

### Questions?

414-297-6282  
[finaid@matc.edu](mailto:finaid@matc.edu)

## MULTIPLE CENSUS DATES

For more information on Census Dates and Degree Audit, go to [matc.edu](https://matc.edu) (search Cost and Aid Deadlines).

# Scholarships

Higher education doesn't have to mean high costs. MATC wants to help you find ways to pay for a life-transforming degree that can lead to a family-sustaining career. Check out the following scholarships offered by the MATC Foundation.

## The MATC Promise for New High School Graduates

MATC established Wisconsin's first free-tuition Promise program in 2015. The MATC Promise for New High School Graduates pays tuition for up to 75 credits for eligible students, after other scholarships and grants are applied. The program recently was expanded to include students completing their GED, HSED or MATC's Adult High School during the eligible time frame. The cost of books, program fees and equipment are not covered.

## The MATC Promise for Adults

The Promise for Adults assists students aged 24 and older who started but did not complete a college degree. Eligible students can receive up to 75 credits of free tuition, after other scholarships and grants are applied, to complete an in-demand program.

## Other Scholarships

In addition to the Promise program, MATC has more scholarships and emergency assistance grants available.

Most scholarships are awarded as multiple-semester (Fall and Spring) scholarships for the next academic year. Here's when you should apply:

New high school graduates and first-time MATC students may apply May 1-31, 2025.

Current and continuing students should apply in February. Scholarship recipients are selected and notified via email in May.

## Questions?

[matc.edu/scholarships](http://matc.edu/scholarships)  
[scholarships@matc.edu](mailto:scholarships@matc.edu)

## DUAL CREDIT SAVES TIME AND MONEY

Jump-start your college and career path through dual credit programs that allow high school students to earn both high school and college credit at little or no cost. These programs offer flexible learning options, including online and in person at MATC, helping students explore careers, complete transferable credits or even earn a career credential before graduation!

### MATC Dual Credit Programs include:

- **Dual Enrollment Academy** Explore workforce-ready programs full time during your senior year.
- **M-Cubed College Connections** Free college credit for Milwaukee Public Schools seniors at MATC and UW-Milwaukee.
- **Start College Now** High school juniors and seniors take individual courses that align with their career goals.
- **Transcripted Credit** High school students (grades 9-12) take MATC-approved courses taught by their own instructors credentialed through MATC.

Programs are predominantly paid by school districts. Families should work with their high school counselors. There are self-pay options. Explore more of MATC's dual credit options to save time, reduce costs and prepare for your future!

## Questions?

[DualCredit@matc.edu](mailto:DualCredit@matc.edu)



## ACADEMIC PROGRAMS

# Pick Your Pathway

MATC's programs are organized into seven Academic and Career Pathways. The first step for any student is to select a Pathway and then meet with an advisor before registering for classes.



### BUSINESS & MANAGEMENT

- Accounting\*
- Accounting Assistant\*
- Accounting Bookkeeper Trainee\*
- Administrative Support Specialist
- Banking and Financial Services\*
- Bilingual Clerical and Customer Support Clerk
- Bilingual Office Assistant
- Business Analyst
- Business Management\*
- Business Management Trainee\*
- Digital Marketing and Integrated Communications\*
- Entrepreneurship\*
- Event Management
- Financial Services\*
- Financial Services Trainee\*
- Foundations of Lodging and Hospitality Management
- Hospitality Management
- Human Resources
- Leadership Development\*
- Marketing\*
- Marketing – Online Accelerated\*
- Medical Admin Specialist
- Medical Billing and Reimbursement Specialist
- Office Technology Assistant
- Property Management\*
- Real Estate\*
- Real Estate Broker Associate\*
- Real Estate Salesperson\*
- Sales and Customer Experience\*
- Special Event Management\*
- Supply Chain Management\*
- Supply Management\*
- Transportation – Logistics\*



### COMMUNITY & HUMAN SERVICES

- Aesthetician
- Aesthetician – Skin Care Therapist
- Barber
- Child Care Services

- Cosmetology
- Criminal Justice Studies
- Early Childhood Education
- Emergency Medical Technician
- Emergency Medical Technician – Advanced
- Emergency Medical Technician – Paramedic
- Environmental Health and Water Quality Technology
- Fire Protection Technician
- Funeral Service
- Human Service Associate
- Legal Studies/Paralegal
- Nail Technician
- Paramedic Technician
- Post-Baccalaureate Legal Studies/Paralegal\*
- Preschool
- Water Technician



### CREATIVE ARTS, DESIGN & MEDIA

- Animation\*
- Audio Engineer
- Audio Production
- Baking and Pastry Arts
- Baking Production
- Computer Simulation and Gaming\*
- Culinary Arts
- Culinary Assistant
- Digital Content Creation
- Digital Imaging
- Food Service Assistant
- Front-End Web Developer\*
- Graphic Design\*
- Interior Design\*
- Music Occupations
- Photography
- Production Artist\*
- Television and Video Production
- TV Video Field Production Assistant
- TV Video Studio Production Assistant
- Unity Developer\*
- Web & Digital Media Design\*



### GENERAL EDUCATION

- Associate of Arts\*
- Associate of Arts – Accelerated Online\*
- Associate of Arts – Art
- Associate of Arts Communication
- Associate of Arts Community Engagement
- Associate of Arts: Global Studies
- Associate of Arts – Spanish
- Associate of Arts – Teacher Education
- Associate of Science
- Associate of Science – Chemical Technology
- Associate of Science – Economics
- Associate of Science – Food Science Technology
- Associate of Science Psychology
- Foundations of Teacher Education



### HEALTHCARE

- Anesthesia Technology
- Cardiovascular Technology – Echocardiography
- Cardiovascular Technology – Invasive
- Community Health & Nutrition Navigator
- Dental Assistant
- Dental Hygiene
- Diagnostic Medical Sonography
- Dietary Manager
- EKG Technician
- Enhanced Yoga Instructor
- Health Information Technology\*
- Health Unit Coordinator\*
- Healthcare Customer Service\*
- Healthcare Services Management\*
- Integrative Health
- LPN to ADN Progression
- Medical Assistant
- Medical Coding Specialist\*
- Medical Interpreter
- Medical Laboratory Technician

- Nursing Assistant
- Nutrition and Dietetic Technician
- Occupational Therapy Assistant
- Pharmacy Technician
- Phlebotomy
- Physical Therapist Assistant
- Practical Nursing
- Radiography
- Registered Nursing
- Respiratory Therapy
- Surgical Technologist



## MANUFACTURING, CONSTRUCTION & TRANSPORTATION

- Air Conditioning and Refrigeration Technology
- Architectural Woodworking/Cabinetmaking
- Auto Collision Repair and Finish Technician
- Automotive Express Lube Technician
- Automotive Maintenance Technician
- Automotive Technology – Comprehensive
- Automotive Technology Maintenance Light Repair
- Aviation Maintenance Technician – General (AMT-G Cert.)
- Aviation Technician – Airframe
- Aviation Technician – Powerplant
- Boiler Operator
- Bricklaying
- Building Automated Systems Technician
- Carpentry
- CNC Setup and Operations
- CNC Swiss Multi-Axis Machining

- CNC Technician
- Dental Technician
- Diesel and Powertrain Servicing
- Electrical Power Distribution
- Electricity
- Landscape Horticulture
- Landscape Horticulture Technician
- Machine Tool Operations
- Manufacturing Maintenance
- Power Engineering and Boiler Operator
- Preparatory Plumbing
- Refrigeration, Air Conditioning and Heating Service Technician
- Technical Studies: Apprentice
- Tool and Die Making
- Truck Driving
- Welding
- Welding Fundamentals
- Welding Technology



## STEM

- Architectural Technology
- Biomedical Electronics Technology
- Chemical Technician
- Civil Engineering Technology
- Computer Electronics Technology
- Electronic Engineering Technology
- Electronic Engineering Technology (BSEE Transfer)
- Electronic Technology – Automation
- Electronics Technician Fundamentals
- Food Science Technology
- IT Computer Support Specialist
- IT Computer Support Technician\*
- IT Digital Forensics Analyst
- IT Help Desk Support Specialist\*

- IT Information Systems Security Specialist
- IT Mobile Applications Developer
- IT Network Specialist (AI, Cloud and Virtualization)
- IT Network Specialist (AI, Cloud and Virtualization) Online Accelerated Cohort\*
- IT Networking and Infrastructure Administration\*
- IT User Support Technician\*
- IT Web and Software Developer
- Level 2 – Service Center Technician\*
- Mechanical and Computer Drafting
- Mechanical Design Technology
- Microsoft Enterprise Desktop Support Specialist\*
- Science Processing Technician
- Service Center Technician\*
- Surveying and Mapping

### Program Options

- Associate Degree
- Technical Diploma
- Certificate
- \* Online option

## CAREER ESSENTIALS

### All programs teach and assess:

Professionalism  
Problem-Solving  
Effective Communication

### And, they emphasize:

Global Awareness  
Technology  
Math

## ONLINE CAMPUS

Pursue your studies entirely online through the Online Campus, which offers 40-plus associate degree, technical diploma and certificate programs, plus digital badges.

### Contact

matc.edu (search Online Campus)  
onlinelearning@matc.edu

## NEW PROGRAMS UNDER DEVELOPMENT

MATC works with local industry and business partners to develop new programs that meet workforce needs. For the current list of MATC's academic programs, go to [matc.edu](http://matc.edu).

### Here's what's coming soon:

- Biotechnology Laboratory Technician
- Human Resources Technical Diploma



## CONTINUING STUDENTS

# Registration

Continuing students and returning students register for their courses during a two-week period determined by the college. Students register by their Academic and Career Pathway according to the schedule below. Meet with your Pathway advisor to pick your courses; register on time to get the best choices.

### REGISTRATION SCHEDULE

To register, log in to [selfservice.matc.edu](https://selfservice.matc.edu) and choose Student Planning.

#### MONDAY

Veterans

#### TUESDAY

Healthcare Pathway

Community Education

#### WEDNESDAY

Business & Management

STEM

#### THURSDAY

Community & Human Services

General Education

#### FRIDAY

Creative Arts, Design & Media

Manufacturing, Construction  
& Transportation

### PAYMENT OPTIONS

Once you've selected your courses, pick a payment option.

#### Payment options include:

- Awarded financial aid
- Sponsorship received by MATC
- Enrolled in the MATC Payment Plan
- Paid in full

Visit [selfservice.matc.edu](https://selfservice.matc.edu) to enroll in a payment plan.

You can pay in person or at [selfservice.matc.edu](https://selfservice.matc.edu) and choose Student Finance.

Fees for most courses are set by the Wisconsin Technical College System Board and are updated each academic year.

### SAVE MONEY ON COURSE MATERIALS

Pay little or nothing for course materials by using Open Educational Resources (OER), which are textbooks, modules, streaming videos, tests, software and any other tools or materials in the public domain that can be used for free. It's interactive, convenient and eco-friendly.

Access No Cost or Low Cost course materials in three easy steps:

1. Go to [selfservice.matc.edu](https://selfservice.matc.edu) and select "Course Catalog."
2. Scroll to "Course Types" and select "No Cost Books/Materials" or "Low Cost Books/Materials <\$50."
3. Select courses from the list and enroll.

## BEFORE YOU REGISTER

### Get Credit for What You Already Know

Before you meet with an advisor, think about what previous courses and experiences could earn you college credit. It's possible you've already gained college-level learning on your own. Credit for Prior Learning Experience is a way to earn credit for specific MATC courses based on skills learned as part of courses completed from another college, work experience, professional licenses, certificates, apprenticeships, military training or through training programs. To graduate, all students must complete 25% of their coursework at MATC.

### Use Credits Previously Earned at MATC

MATC has designed many of its programs to offer students a quicker path to completing advanced credentials by applying their credits earned previously in a related MATC certificate or technical diploma. For example, credits earned while pursuing a Business Management technical diploma could count toward earning an associate degree. Talk with a Pathway advisor for details.

### Service Members Register First

We honor the fact that state law gives veterans and members of the armed forces priority in registering for courses at Wisconsin technical colleges and the Universities of Wisconsin. Veterans register on the first day of each registration period. The Military Education Support Office (MESO) has registration information available for veterans at [matc.edu](http://matc.edu) (search MESO).



## PATHWAY ADVISORS

Each Pathway has a team of advisors available to support students along their educational journey. Email your Pathway to connect with an advisor.

Margaret Ehlert, one of many advisors in the Community & Human Services Pathway, shares how advisors can help:

“Working with a Pathway advisor will ensure that students have pertinent information up front, which helps them make the best choice for classes to take each semester and allows them to get through the program in the most efficient way.

We discuss workloads with students and time needed for each class, help them look at their home and work schedule commitments, and collaborate with students to set them up for success.”

## TRANSFER

# Start a Bachelor's Degree at MATC

You can seamlessly transfer most MATC credits to several four-year colleges or universities in Wisconsin. MATC has agreements with more than 40 transfer partners. Here's what you need to know:

### PLAN AHEAD

It's important to check with your program advisor to find out which courses and programs will transfer to the four-year college or university you plan to attend. Also, keep in touch with the admissions department of your choice school and make sure your MATC work matches its bachelor's degree requirements.

### UNDERSTAND YOUR TRANSFER OPTIONS

Research your transfer options to find the right fit. Some MATC transfer arrangements are course-to-course agreements, while others allow a complete degree program transfer. It's important to understand the different types of agreements:

#### Liberal Arts and Sciences Transfer

Earn 60 or more bachelor's degree transfer credits through programs in MATC's General Education Academic & Career Pathway. You can transfer credits earned in MATC's 200-level courses to most four-year colleges and universities in Wisconsin, and to others across the nation. MATC's Associate of Arts and Associate of Science degrees are equivalent to the general education/liberal arts and sciences requirements for freshmen and sophomores enrolled in many bachelor's degree programs at four-year colleges and universities.

#### Program-to-Program Transfer Agreements

Selected associate degree program credits are accepted as the first two years of a related bachelor's degree program at designated partner four-year colleges and universities.

#### All-Inclusive Transfer Agreements

MATC students may transfer many or all of their credits from MATC and apply them toward a four-year degree at the accepting school.

#### Transfer Agreements by Institution

Find out which four-year colleges and universities have transfer agreements with MATC. Get the specifics about the MATC degree programs they accept for transfer. Some are all-inclusive.

Transfer agreements set the credits that will transfer to a four-year institution. If no agreement is in place, you should talk with the institution you are planning to attend and discuss what they are willing to accept.

For a complete list of agreements, visit [matc.edu/transfer](https://matc.edu/transfer).

## TRANSFER RESOURCES

### MATC's Office of Articulation and Transfer

#### Contact

[matc.edu/transfer](https://matc.edu/transfer)  
414-297-6836

#### Transfer Events

MATC hosts representatives from many public and private colleges and universities throughout the academic year. Check [matc.edu/events](https://matc.edu/events) for dates and times:

- Semiannual Transfer Days
- Weekly four-year transfer partner visits
- On-campus university services through the Center for University Partnerships and Studies

#### Guaranteed Transfers

MATC has agreements in place with four-year colleges and universities that guarantee transfers as long as academic requirements are met. Here are a few:

Alverno College  
Concordia College  
Lakeland University  
Marquette University  
Universities of Wisconsin System (Madison, Milwaukee, Parkside)

See a complete list at [matc.edu/transfer](https://matc.edu/transfer).



## JOB RESOURCES

# CareerHub

CareerHub is here to help with your job or internship search. Get ready for your career by taking advantage of career coaching, resume reviews, mock interviews and opportunities to connect with area employers. Here's a list of what CareerHub has to offer:

- Student employment/work study
- Internships/InternConnect
- Career coaching/planning
- CareerHub events
- Find a job/career readiness
- Career services for diverse populations
- Transfer options with four-year transfer partners
- Transfer in and Credit for Prior Learning and Experience
- Opportunities to connect with employers

### Contact

matc.edu/careerhub  
careerhub@matc.edu  
414-297-6244

### Office Locations

Downtown Milwaukee Campus, Room S101  
Oak Creek Campus, Room A106  
Mequon Campus, Room A100

## INTERNSHIPS

Internships allow students to apply what they've learned, while gaining real experience, by combining in-class work with a career-related job. You will acquire work experience, enhance personal growth and you may earn college credit. Internships are mandatory in some MATC programs and optional in others; refer to the program's curriculum. Visit [matc.edu](http://matc.edu) (search Internships) for more information.

## HANDSHAKE

Handshake is an online career platform that is a resource for students and alumni to connect with internships and job opportunities. [joinhandshake.com](http://joinhandshake.com)

## FIND EMPLOYMENT INFORMATION

MATC's Graduate Career Report is a snapshot of the college's graduates and their career and salary information. It's a helpful resource for prospective and current students as they plan their education and careers. Visit [matc.edu](http://matc.edu) (search Career Report).



## WORKFORCE SOLUTIONS

MATC Workforce Solutions offers regional businesses professional training and development that includes custom and on-site options. We provide training that is responsive for today's fast-paced, ever-changing business environment and produce outcomes that can be applied on the job immediately. Led by experienced professional educators, each cost-effective program is custom-designed and scalable to fit individual business needs. Workforce Solutions is committed to the economic development of the region and achieving a diverse and trained workforce.

### Services include:

- Organization-wide training and development programs delivered on site, at any MATC location or delivered online
- Customized training to improve organizational and leadership performance
- Enhancement of workforce skills to improve employee productivity
- Professional development workshops and seminars
- Workforce Advancement Training (WAT) grants to upskill incumbent employees

### Contact

matc.edu (search Workforce Solutions)

## ACADEMIC STANDARDS

# Expectations for Student Success

The MATC Standards of Academic Success are the requirements for students to maintain satisfactory academic progress. This lets students know when they may need additional help and when they are at risk.

### The Standards of Academic Success apply to all students enrolled in associate degree and technical diploma programs.

MATC calculates students' Academic Status three times each year: after the end of the Fall, Spring and Summer semesters. Grade changes and completion of incomplete grades will be calculated the following semester. This calculation includes:

- Minimum 2.0 semester grade-point average (GPA) based on coursework completed at MATC during the semester
- Minimum 2.0 cumulative GPA based on all coursework completed at MATC
- Minimum 67% semester course completion rate (percentage of credits completed out of credits attempted at MATC for the semester being evaluated)
- Minimum 67% cumulative course completion rate (percentage of credits completed out of all credits attempted at MATC)

After the calculation, students will be placed on Good Academic Standing, Academic Warning, Academic Suspension, Academic Probation or Academic Probation With Monitored Academic Plan. See the Student Handbook for more information.

### GRADUATION REQUIREMENTS AT MATC

To graduate from a program, you must complete all program requirements and have a **cumulative grade-point average of 2.0 or higher**.

Associate degree programs and technical diploma programs require that the final 25% of credits be taken at MATC.

If you were not continuously enrolled in your program (excluding summers) while attending MATC, the graduation requirements in effect at the time of your reenrollment or readmission into the program will be used to determine your eligibility for graduation.

#### Graduation application deadlines:

**FOR FALL** – October 31

**FOR SPRING** – March 31

### SATISFACTORY ACADEMIC PROGRESS (SAP) – FOR FINANCIAL AID

#### Keeping up with school, so you don't risk losing your financial aid

Students receiving financial aid must make Satisfactory Academic Progress toward the completion of course requirements for an associate degree, technical diploma or eligible certificate. Students can only receive financial aid for classes that are required or prepare them for success (remedial courses) in their program area. To be considered in good standing at MATC, a student must meet all of the following requirements:

#### Grade-Point Average (GPA) Requirement

Students must maintain a cumulative GPA of 2.0 or better. Remedial credits will be considered in GPA. For repeat coursework, the highest grade received will be considered.

#### Completion Rate Percentage Requirement

A student must successfully complete **67% of all credits attempted**. That means you have to pass two-thirds of your classes. This is a cumulative percentage. Credits attempted are the total credits you are enrolled in (including remedial, repeated courses, withdrawals, incompletes and transfer credits) even if you did not receive aid for them.

#### Maximum Time Frame Requirement

Students must complete an associate degree, technical diploma or eligible certificate before 150% of credits required for graduation are attempted. For example: If an associate degree (two-year published length) requires 60 credits, a student must complete the degree before 90 credits have been attempted. Students may be deemed ineligible for aid at the point when they cannot mathematically complete their program within the 150% time frame.

Visit [matc.edu](http://matc.edu) (search Academic Standards) for more details.

### ELIGIBILITY FOR LOANS AND STATE GRANTS

Before the federal financial aid census date, you need to be enrolled in at least six credit hours to be eligible for a loan and for state grants. In order for your loan to be processed, you must complete the online loan counseling and sign an online master promissory note at [studentaid.gov](http://studentaid.gov). The federal financial aid date, census date and other important dates are listed on [matc.edu](http://matc.edu) (search Financial Aid.)

## DEFERMENTS FOR COURSE FEES OR BOOKS

As a student receiving federal financial aid, you may be eligible for a deferment. This could cover the cost of books, fees, required uniforms or tools until your funds are available. You'll need approval from the Financial Aid office, and will sign a promissory note agreeing to pay these costs by a set date. A processed federal FAFSA Submission Summary is necessary for this option.

## PREREQUISITES

Prerequisites are previous courses you need to have taken for success in a class. You'll need to complete the required prerequisites for a class before enrolling. Prerequisite courses are listed with the course description on [selfservice.matc.edu](https://selfservice.matc.edu).

Contact your advisor or the instructor of the course you wish to enroll in if you have any questions about prerequisites. This should be done before you enroll in the course.

## CO-REQUISITES

Co-requisites are previous courses you need to complete prior to or at the same time as a class. Co-requisite courses are listed with the course description on [selfservice.matc.edu](https://selfservice.matc.edu).

Contact your advisor or the instructor of the course you wish to enroll in if you have any questions about co-requisites. This should be done before you enroll in the course.

## STUDENT HANDBOOK AND STUDENT CODE OF CONDUCT

The Office of Student Life updates and distributes the MATC Student Handbook, which includes the Student Code of Conduct. MATC may impose disciplinary sanctions for violations of the Student Code of Conduct. Violations may include, but are not limited to, the following situations:

- Conduct that damages or destroys college property, or attempts to damage or destroy college property
- Failure to comply with federal, state, county and municipal laws or ordinances while participating in MATC activities or while present on MATC property
- Conduct that obstructs or impairs, or attempts to obstruct or impair, MATC's authorized activities, whether inside or outside a classroom, office, lecture hall, library, laboratory, auditorium, student center, or other place where an MATC-authorized activity is being held
- Conduct that endangers the safety or welfare of students, instructors, administrators, staff or visitors
- Unauthorized possession of college property or property of another member of the college community
- Making a false statement, either verbally or in writing, to any MATC employee or agent on an MATC related matter
- Conduct that engages in racial, religious, national origin, age, sexual or handicap harassment
- Acts of academic dishonesty

Academic dishonesty includes cheating, collaborating with another without the approval of the instructor, plagiarizing, stealing the work of another, falsifying records of work and assisting another student in any of the above.

Students judged to have violated the Student Code of Conduct are subject to disciplinary action, in accordance with due process procedures described in the Student Code of Conduct booklet provided by the Office of Judicial Affairs. The Student Code of Conduct is the definitive document on student conduct and the judicial system. See [matc.edu](https://matc.edu) or call 414-297-8177.

## MATC STUDENT RECORDS INFORMATION

### Family Educational Rights and Privacy Act (FERPA)

MATC complies with FERPA; the purpose of this act is to allow students to know what educational records are kept by the college, to provide students the right to inspect those records and ask for corrections if necessary, and to control the release of such information to those who are not involved in the educational process.

Under FERPA, directory information is made available to anyone who requests it unless you specifically ask that this not be done. To block directory information, the request must be made in the Registrar's office at the Downtown Milwaukee Campus. Contact the Registrar's office to complete the necessary paperwork. MATC considers directory information to be only the following: name; major field of study; dates of attendance; full-time/part-time status; degrees, technical diplomas or certificates awarded; and participation in officially recognized activities and sports. MATC will not provide information regarding time and location of a student's classes, and does not provide student or instructor home addresses and/or telephone numbers.

Under FERPA, personally identifiable information in your education record will not be released or disclosed unless you consent to such a release. However, there are exceptions under FERPA that authorize disclosure without your consent. One exception is disclosure to school officials with legitimate educational interests. This typically means an official needs to review an education record to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

FERPA allows the release of education records without the consent of the student or parents to authorized representatives of the state attorney general's office for law enforcement purposes.

FERPA permits disclosure to an alleged victim of either a crime of violence or of a nonforcible sex offense the final results of any disciplinary action taken against an alleged perpetrator.

For more information related to educational records or the release of your records, please call 414-297-6824.





## RESOURCES FOR SUCCESS

# Your Academic Support Team

MATC has the resources you need to succeed. There is a lot of help available, so it's important to know where to go and who is on your team. In the following pages, we introduce you to your academic support team and the collegewide services that assist you with life beyond the classroom:

### PATHWAY ADVISORS

After you're admitted, reach out to your Pathway office and set up an appointment to speak with a Pathway advisor. This is a crucial first step to keep you on track to graduate as soon as possible. Pathway advisors help you select and register for classes in your program — classes that fit your schedule. And, they can connect you with tutoring or other specialized assistance. Don't struggle to figure things out on your own. Email your Pathway to connect with an advisor.

### RETENTION COACHES

Life doesn't care that you're a college student trying to balance work, family, friends and classes. Retention coaches care, and they are here to help you conquer the challenges — great and small — that might keep you from graduating. They'll help you set goals and achieve them. And, retention coaches offer specialized help that includes Spanish-speaking coaches, math success and technology assistance with online learning. Retention coaches help you stay in school and graduate.

#### Contact

Request a retention coach at [matc.edu](http://matc.edu) (search Retention Coach).

### MATC LIBRARIES

All four campus libraries offer an array of resources and services, including great spaces to study and technology loans, such as Chromebooks and hot spots, as available.

#### Ask a Librarian: Get Help

[answers.matc.edu](http://answers.matc.edu) or by texting 414-937-5379

## TUTORS AND ACADEMIC SUPPORT CENTERS

Tutors are ready to guide you in person, in groups or virtually through your coursework. Plus, tutoring is open to all students based on availability and need. Find a tutor at the Academic Support Centers located on each campus or get specialized help at these centers:

- **Computer Center:** Use the computers and internet for free, or print assignments (printing fees apply).
- **Math-Science Center:** Get help in math (all levels), science and healthcare courses.
- **Writing Center:** Improve your writing with assistance from staff who can guide you through course-related written assignments and resume writing.

### Contact

In-person tutoring or specialized center locations:

matc.edu (search MATC ASC).

Online tutoring: matc.edu (search MATC Online Tutoring).

## STUDENT ACCOMMODATION SERVICES

Student Accommodation Services (SAS) ensures that students with disabilities have equal opportunities and access to all courses, programs and activities offered at MATC. SAS offers a variety of services to help students, including an emotional support dog named Pepper.

Prospective students with disabilities should contact Transition Services accommodationservices@matc.edu.

### Contact

Downtown Milwaukee Campus, Room C219

414-297-7839

Mequon Campus, Room A282

262-238-2227

Oak Creek Campus, Room A211

414-571-4568

West Allis Campus, Room 217

414-456-5352

matc.edu (search SAS)

## TEXTBOOKS AND SUPPLIES

The MATC Bookstore has everything you'll need for your time as a college student. Shop new and used textbooks, office supplies, electronics, MATC apparel, culinary and baking uniforms and supplies, lab and course specific kits, sundries, gifts, and more. Find a bookstore at all four campuses.

### Contact

bookstore.matc.edu

bookstore@matc.edu

Downtown Milwaukee Campus, 414-297-6811

Oak Creek Campus, 414-571-4619

Mequon Campus, 262-238-2293

West Allis Campus, 414-456-5357

## VETERANS SERVICES (MILITARY EDUCATION SUPPORT OFFICE – MESO)

We proudly recognize recipients of the GI Bill. If you plan to take advantage of federal or state military educational benefits, paperwork should be submitted prior to the start of each semester. We handle all certifying and processing of educational benefits at the Downtown Milwaukee Campus.

For efficiency, please contact the proper office — all military service, veterans and dependents educational benefits are processed in the MESO office only. Keep in mind you may be eligible for other types of financial aid in addition to VA benefits. And, MATC offers eligible student veterans and current military service members priority registration for each term in keeping with state law.

### Contact

meso@matc.edu

414-297-8363

## OFFICE OF BILINGUAL EDUCATION

If your first language is not English, or if you are fluent in English and Spanish or English and Hmong, MATC offers bilingual programs and services to help you reach your academic and personal goals.

The Office of Bilingual Education provides test proctoring, admission screening, program information, financial aid information, advising and referral, counseling referrals, career exploration, registration assistance, student advocacy, case management, and tutoring support. For English as a Second Language/English Language Learner programs, see Community Education on page 314

### Contact

Downtown Milwaukee Campus, Room T248

414-297-8882

## MULTICULTURAL STUDENT SERVICES

Working to leverage cultural strengths to help overcome the challenges faced by students of diverse backgrounds, the Office of Multicultural Student Services provides support services, case management, advocacy and intervention, and academic advising. It's made up of four main offices:

- African American Student Services
- American Indian Student Services
- Asian American Student Services
- Hispanic Student Services

Advisors serve as advocates for students of color from diverse backgrounds and work to keep students enrolled.

### Contact

Downtown Milwaukee Campus, Room M238

matc.edu (search Multicultural Student Services)

414-297-6968





## RESOURCES FOR SUCCESS

# Outside the Classroom

For help with needs beyond academics, such as child care or mental health counseling, start with Student Life and the Student Resource Center.

### STUDENT RESOURCE CENTER

The MATC Student Resource Center connects students to campus and community resources that help them overcome barriers that interfere with their academic success.

#### Contact

Downtown Milwaukee Campus, S Building, Room S215  
studentresources@matc.edu  
matc.edu (search Student Resource Center)  
414-297-6199

### STUDENT ID

The MATC Stormer Pass is the official identification card for students at MATC. It provides an easy, safe and convenient method to make purchases and use services on campus.

#### Contact

stormerpass@matc.edu  
414-297-6229

### STUDENT LIFE

Student Life is dedicated to serving students and creating a welcoming environment on campus. Services include:

- Educational, recreational and cultural programming
- Student organizations
- Student housing information
- Honor recognition
- Problem-solving
- Student advocacy and student development

If you have college-related concerns or problems, you are encouraged to seek help from Student Life.

#### Contact

studentlife@matc.edu  
matc.campuslabs.com/engage  
matc.edu (search Student Life)  
Downtown Milwaukee Campus, 414-297-6229  
Mequon Campus, 262-238-2218  
Oak Creek Campus, 414-571-4715  
West Allis Campus, 414-456-5304



## MENTAL HEALTH COUNSELING SERVICES

The licensed professional counselors in Counseling and Psychological Services (CAPS) support students with mental health and wellness needs.

All services are free, confidential and tailored to fit each student's needs. In-person, phone and virtual services are available by appointment Monday-Friday, 8 a.m.-5 p.m.

### Contact

counseling@matc.edu or matc.edu/CAPS  
414-297-7582

Downtown Milwaukee Campus, Room S209  
Mequon Campus, Room A110  
Oak Creek Campus, Room A209  
West Allis, Virtual and phone appointments

## STUDENT HOUSING

Live near the Downtown Milwaukee Campus! Westown Green, a unit-style student apartment building, offers amenities that include fitness center, computer lab, study lounges and club room. Developed and owned by J. Jeffers & Co. and operated by Founders 3 Real Estate Services, Westown Green is a preferred housing partner of MATC.

### Contact

matc.edu/westowngreen

## CHILD CARE SERVICES

MATC offers reliable, quality child care through the MATC Children's Centers. Children learn in an environment that encourages emotional, social, intellectual and physical development. All locations are nationally accredited and hold a five-star quality rating from the state of Wisconsin. Flexible scheduling is available, but children must be registered prior to attending children's centers. MATC is approved for payment by several funding agencies.

### Contact

Downtown Milwaukee Campus, Room H240, 414-297-7880  
Mequon Campus, Room A216, 262-238-2450  
Oak Creek Campus, Room B124, 414-571-4690  
West Allis Campus, 865 South 72nd Street, 414-456-5419

## DROP-IN CHILD CARE

MATC is one of a few higher education institutions in the state to offer free drop-in child care to students who are on campus for a few hours conducting college-related business such as meeting with an advisor or a financial aid specialist. Children age six months to 10 years old are welcome.

### Contact

Downtown Milwaukee Campus, Room M172  
littlestormers@matc.edu  
414-297-6689

## VETERANS RESOURCE CENTER

We recognize that military-affiliated students have unique needs on a college campus, and staff members in the Veterans Resource Center ease the transition from the military to college. Get information about veteran resources, use computers, do homework or socialize at the VRC office on the Downtown Milwaukee Campus. Veterans, those currently serving in the military, and dependents and spouses receiving benefits can contact the VRC with questions.

### Contact

Downtown Milwaukee Campus, Room S201  
vrc@matc.edu

## FOOD

The Campus Meal Plan allows students to buy any item sold in the Campus Cafe, any Stormer Cafe and the convenience store at the Downtown Milwaukee Campus. Purchase Dining Dollars in blocks of \$150. Find out how you can purchase Dining Dollars at [matc.edu](http://matc.edu) (search Meal Plan).

Students have plenty of food options:

- Cafeterias at all campus locations
- Convenience store at the Downtown Campus
- Free grocery delivery at the Downtown Campus through Kroger
- Food Pantries with market-style shopping for students experiencing food insecurity
- Bakery and cafe run by students in the Culinary Arts and Baking and Pastry Arts programs at the Downtown Campus

## HEALTH

The Public Health team seeks to improve the health of the MATC family by giving everyone a safe environment to learn and work. The team promotes healthy lifestyles and workplace safety, and responds to medical crises affecting our community. To learn about health resources, visit [matc.edu](http://matc.edu) (search Public Health).

## FASTCARE

MATC partners with Froedtert & the Medical College of Wisconsin to provide free healthcare clinic options for MATC students. Learn more about available services at [matc.edu](http://matc.edu) (search FastCare).

## SAFETY

Maintaining a safe campus environment is Public Safety's No. 1 priority. Public Safety officers are available to respond to requests for assistance at any MATC location.

### Contact

414-297-6588 (non-emergency number)  
414-297-6200 (emergency)



## RESOURCES FOR SUCCESS

# Student Activities

There are many opportunities for students to participate in fun and fulfilling extracurriculars. To see what's happening on campus, visit the Student Life office at your campus or [matc.campuslabs.com/engage](https://matc.campuslabs.com/engage).

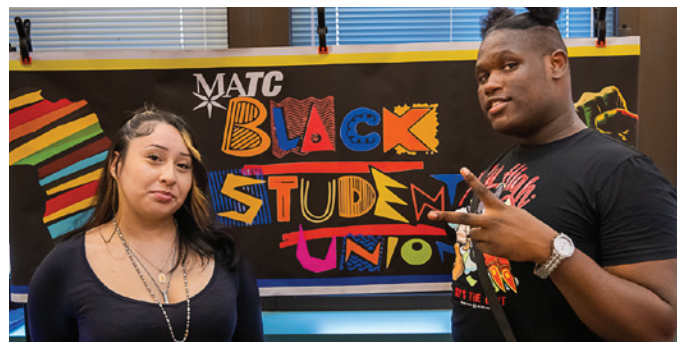
## STUDENT ORGANIZATIONS

With more than 35 student organizations and clubs to choose from, you're sure to find a group that's right for you at MATC. Featuring academic, professional, service, cultural and special-interest organizations, MATC values providing enriching and exciting opportunities for students. To find out about registered student organizations, or how to start a new one, visit Student Life — there's an office at each MATC campus.

**Learn more**  
[matc.campuslabs.com/engage](https://matc.campuslabs.com/engage)

## STUDENT GOVERNMENT

Do you want to make an impact as a student leader? Participating in Student Government is a great opportunity to contribute to MATC while developing your skills in communication, organization and leadership. Through Student Government, all MATC students are represented by elected student representatives. Officially recognized as the voice of the student body by the administration of MATC, Student Government makes recommendations to the director of Student Life regarding student- or college-related issues. To become involved, call the Student Life office at your campus.







## ATHLETIC TEAMS – THE STORMERS

Students on all of our sports teams learn and practice skills that serve them throughout their lives. MATC sports teams are members of the National Junior College Athletic Association and the North Central Community College Conference. Find information about athletic opportunities and the schedule of games and matches on the Stormers website.

MATC varsity athletic teams:

- Baseball (Men's)
- Basketball (Men's and Women's)
- Soccer (Men's and Women's)
- Softball (Women's)
- Tennis (Men's and Women's)
- Volleyball (Women's)

**Learn more**

[matcstormers.com](http://matcstormers.com)



## NEWSPAPER

The MATC Times is an award-winning newspaper that gives students an opportunity to express themselves and use their skills to engage the MATC community through their print publication and website.

Students are encouraged to tap into their passions and share their stories in words, pictures, video, audio or drawings. They can create content about current events, sports, music, movies, gaming, poetry, art and other topics. Students have an opportunity to create professional work for the Times and link it to their resumes and portfolios. They can commit as much or as little time as they would like to in a variety of roles, including contributor, writer, photographer, illustrator, graphic designer, social media manager and editor.

**Contact**

[matctimes360.com](http://matctimes360.com)

[matctimes@gmail.com](mailto:matctimes@gmail.com)

## DEVELOPMENT EVENTS

These programs and events present information you can apply to life on campus, as well as your overall personal development.

**Learn more**

[matc.campuslabs.com/engage/events](http://matc.campuslabs.com/engage/events)

## STUDENT ENGAGEMENT PROGRAMS

Working with campus student organizations, Student Life brings together students from a broad range of ethnic and cultural groups. Student Life plans, implements and coordinates social and cultural extracurricular events, including student entertainment programs, in collaboration with student organizations.

**Learn more**

[matc.campuslabs.com/engage/events](http://matc.campuslabs.com/engage/events)



## HONOR SOCIETIES

Eligible students for Phi Theta Kappa ([ptk.org](http://ptk.org)), National Technical Honor Society ([nth.s.org](http://nth.s.org)) and Delta Alpha Pi ([deltaalphapihonorsociety.org](http://deltaalphapihonorsociety.org)) are notified via email in the Fall or Spring semesters. Students who are eligible to become members of the National Society of Leadership and Success ([nsls.org](http://nsls.org)) will receive an invitation from NSLS in the mail. We encourage students to research or obtain further information about these honor societies via their websites.

**Contact**

[matc.edu](http://matc.edu) (search Honor Societies)





## CONFLICT RESOLUTION

# Problem-Solving on Campus

### Process to Share Complaints

The college's formal process for students, alumni, community members, parents and staff to share a complaint is as follows:

1. Complete the online form (available in English and in Spanish). Go to [matc.edu](http://matc.edu) and search Complaints. (Complaints must be filed within 30 days of occurrence.)
2. You will receive an automated response that the complaint has been received and is under review.
3. Upon conclusion, and after investigating the nature of the complaint/compliment, the appropriate MATC staff will respond in writing within 10 college business days. The response will include a written description of the complaint/compliment, including all pertinent details and a statement regarding action taken.

Please note that you follow the same process to share a compliment.

### Office of the Ombudsperson

The Office of the Ombudsperson offers an informal path for students to address college-related concerns, conflicts or issues in a safe, neutral and nonjudgmental space.

The Ombudsperson (or Ombuds) provides a confidential and supportive environment for students to explore their options, receive guidance and develop resolution strategies tailored to their unique situations. The Ombuds empowers students to make informed decisions about how best to navigate their challenges.

Services provided by the Ombuds include conflict coaching, informal mediation and restorative practices like talking circles to foster understanding and resolution. These services complement the college's formal processes, offering an alternative and informal pathway for problem-solving.

The Ombuds operates independently and impartially, advocating for fairness, respect and equity. The office does not represent any individual, group, or the college, but instead serves as a neutral resource committed to promoting a fair process for all parties.

### Contact

[ombuds@matc.edu](mailto:ombuds@matc.edu)  
[matc.edu/ombuds](http://matc.edu/ombuds)  
414-297-6294  
Downtown Campus, Room M358

# BUSINESS & MANAGEMENT

Whether your goal is to earn a degree, transfer to a four-year college, or start a business or career, the Business & Management Pathway, along with industry-experienced faculty and staff, will prepare you to lead, manage, supervise and influence in business and finance. According to the 2019 U.S. Bureau of Labor Statistics report, employment in the financial sector is projected to grow 7% by 2028. At MATC, we offer dynamic instruction and experiential learning. And, MATC allows you to earn certificates and technical diplomas on your way to completing a degree, as you gain real-world industry work experience, and join a community of business and financial professionals.

## Pathway Offices

**Downtown Milwaukee Campus**, Main Building, Room M386, **414-297-8903**

**Mequon Campus**, Room A108

**Oak Creek Campus**, Room A121

**West Allis Campus**, Room 103, **414-456-5323**

[leadpathway@matc.edu](mailto:leadpathway@matc.edu)



Accounting AD  
Accounting Assistant TD  
Accounting Bookkeeper Trainee C  
Administrative Support Specialist TD  
Banking and Financial Services AD  
Bilingual Clerical and Customer Support Clerk TD  
Bilingual Office Assistant TD  
Business Analyst AD  
Business Management AD  
Business Management TD  
Business Management Trainee C  
Digital Marketing and Integrated Communications TD  
Entrepreneurship TD  
Entrepreneurship C  
Event Management AD  
Financial Services TD  
Financial Services Trainee C  
Foundations of Lodging and Hospitality Management TD

Hospitality Management AD  
Human Resources AD  
Leadership Development AD  
Marketing AD  
Marketing – Online Accelerated AD  
Medical Admin Specialist TD  
Medical Billing and Reimbursement Specialist TD  
Office Technology Assistant TD  
Property Management C  
Real Estate AD  
Real Estate Broker Associate TD  
Real Estate Salesperson C  
Sales and Customer Experience TD  
Special Event Management TD  
Supply Chain Management AD  
Supply Management TD  
Transportation – Logistics TD



**AD** Associate Degree program  
**TD** Technical Diploma program  
**C** Certificate program

# Accounting

PROGRAM CODE: 10-101-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Oak Creek Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Designed to provide fundamental accounting skills in a range of applications, this program is a good fit for students who like to work with numbers. You will learn about financial, cost, tax, payroll, governmental, nonprofit and computerized accounting.

### Career Outlook

Qualified accounting applicants continue to be in demand.

### Program Learning Outcomes

- Process financial transactions throughout the accounting cycle.
- Evaluate financial information to support decision-making.
- Process payroll.
- Perform cost accounting tasks.
- Perform income tax accounting tasks.
- Apply internal controls to minimize risk.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
ACCTG-111 Accounting 1 ^.....	4
ACCTG-121 Income Taxation ^.....	4
ACCTG-122 Accounting Software Applications ^.....	3
MATH-107 College Mathematics ‡ ^..... (or) Any 200-level MATH course	3
ACCTG-113 Accounting 2 ‡ ^.....	4
ACCTG-130 QuickBooks Online ‡ ^.....	3
ACCTG-142 Payroll Accounting ^.....	2
BADM-165 Legal Environment of Business ^.....	3
ENG-195 Written Communication ‡ ^..... (or) Any 200-level ENG course	3
ACCTG-116 Intermediate Accounting ‡.....	4
ACCTG-126 Accounting for Managers .....	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
FIN-180 Corporate Financial Management ‡.....	3
ACCTG-145 Forensic Accounting ‡..... (or) FIN-122 Investment Principles ‡	3
ACCTG-150 Accounting Practice With a Systems Approach ‡.....	3
ACCTG-155 Applied Individual Income Tax ‡..... (or) FIN-122 Investment Principles ‡	3
FIN-120 Introduction to Money, Banking and Financial Markets ‡.....	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Accounting Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Accounting Assistant

PROGRAM CODE: 31-101-1



Technical Diploma



COURSES	CREDITS
ACCTG-111 Accounting 1 ^.....	4
ACCTG-122 Accounting Software Applications ^.....	3
BADM-165 Legal Environment of Business.....	3
MATH-107 College Mathematics ‡..... (or) Any 200-level MATH course	3
ACCTG-113 Accounting 2 ‡.....	4
ACCTG-121 Income Taxation.....	4
ACCTG-130 Computerized Accounting With QuickBooks Online ‡ ^.....	3
ACCTG-142 Payroll Accounting.....	2
ENG-195 Written Communication ‡..... (or) ENG-201 English 1 ‡	3

**Location:** Downtown Milwaukee Campus, Oak Creek Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Prepare for entry-level positions in the accounting field. Develop competence in financial, managerial, tax and payroll accounting.

## Career Outlook

Qualified accounting applicants continue to be in demand. Employment opportunities exist in banking, business and industry, government offices, and nonprofit organizations.

## Program Learning Outcomes

- Process financial transactions throughout the accounting cycle.
- Evaluate financial information to support decision-making.
- Process payroll.

## CREDITS

Total credits needed to complete this diploma

# 29

‡ Prerequisite required.

^ Counts toward earning the Accounting Bookkeeper Trainee certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Accounting Bookkeeper Trainee

PROGRAM CODE: 61-101-1



Certificate



COURSES		CREDITS
<b>ACCTG-111</b>	Accounting 1 .....	4
<b>ACCTG-122</b>	Accounting Software Applications .....	3
<b>ACCTG-130</b>	QuickBooks Online ‡ .....	3

CREDITS  
Total credits needed to complete this certificate

# 10

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Oak Creek Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

## Program Description

This certificate prepares you to enter the bookkeeping/accounting field in an entry-level capacity. Through the program's three courses, students develop competence in financial accounting with an emphasis on accounting software, spreadsheets and databases.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Administrative Support Specialist

PROGRAM CODE: 31-106-11



Technical Diploma



**Location:** West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Get ready to take on key responsibilities that include operating new office technologies, performing and coordinating an office's administrative activities, and storing and integrating information for dissemination to staff and clients. Courses are offered in a variety of formats, which may include traditional classroom instruction and an online component.

## Career Outlook

The employment outlook is strong. Opportunities are best for candidates with extensive knowledge of computer software applications.

## Program Learning Outcomes

- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform routine administrative procedures.
- Manage administrative projects.
- Maintain internal and external relationships.
- Model professionalism in the workplace.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>OFTECH-101</b> Office Technologies 1 ^..... 3	3
<b>OFTECH-103</b> Keyboard and Keypad ^ ..... 1	1
<b>OFTECH-122</b> Business English Essentials ^ ..... 3	3
<b>OFTECH-119</b> Information Management ^ ..... 3	3
<b>OFTECH-182</b> Customer Service Skills ^ ..... 3	3
<b>OFTECH-104</b> Budgeting Basics for Support Personnel ^ ..... 3	3
<b>OFTECH-133</b> Business Document Production 1 ‡ ^ ..... 3	3
<b>OFTECH-184</b> MS Office: Word, Excel, Access and PowerPoint ‡ ^ ..... 3	3
<b>OFTECH-111</b> Workplace Communications for Support Personnel ..... 3	3
<b>OFTECH-153</b> Collaboration Tools ..... 1	1
<b>OFTECH-165</b> Administrative Office Procedures 1 ‡ ^ ..... 3	3
<b>OFTECH-123</b> Proofreading and Editing ‡ ..... 3	3
<b>OFTECH-137</b> Business Document Production 2 ‡ ..... 3	3
<b>OFTECH-170</b> Meeting and Event Planning for Support Personnel ..... 3	3
<b>OFTECH-185</b> MS Office – Intermediate ‡ ..... 3	3
<b>OFTECH-196</b> Administrative Professional Internship ‡ ^ ..... 1	1

## CREDITS

Total credits needed to complete this diploma

**45**

‡ Prerequisite required.

^ Counts toward earning the Office Technology Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Banking and Financial Services

PROGRAM CODE: 10-114-3



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Learn accounting and financial principles used in banks, credit unions, insurance and consumer finance companies, and corporate finance departments.

## Career Outlook

Graduates will have a solid foundation for a range of career opportunities within the industry, including personal banker, credit specialist, insurance sales agent and loan specialist.

## Program Learning Outcomes

- Create reports.
- Analyze financial data.
- Analyze investments.
- Sell financial products and services.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
ACCTG-111 Accounting 1 ^.....	4
ACCTG-122 Accounting Software Applications ^.....	3
BADM-165 Legal Environment of Business ^.....	3
ENG-195 Written Communication ‡ ^..... (or) ENG-201 English 1 ‡	3
FIN-110 Principles of Banking ^.....	3
ACCTG-113 Accounting 2 ‡.....	4
BADM-134 Business Organization and Management ^.....	3
FIN-120 Introduction to Money, Banking and Financial Markets ‡ ^.....	3
MATH-123 Math With Business Applications ‡ ^..... (or) Any 200-level MATH course	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
ACCTG-121 Income Taxation.....	4
ACCTG-126 Accounting for Managers.....	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
FIN-170 Credit Management ^.....	3
ACCTG-130 QuickBooks Online ‡.....	3
ACCTG-145 Forensic Accounting ‡..... (or) ACCTG-155 Applied Individual Income Tax ‡	3
FIN-122 Investment Principles ‡ ^.....	3
FIN-180 Corporate Financial Management ‡.....	3

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Financial Services technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Bilingual Clerical and Customer Support Clerk

PROGRAM CODE: 30-106-11



Technical Diploma



COURSES	CREDITS
<b>OFTECH-101</b> Office Technologies 1 .....	3
<b>OFTECH-103</b> Keyboard and Keypad.....	1
<b>OFTECH-104</b> Budgeting Basics for Support Personnel.....	3
<b>OFTECH-183</b> Bilingual Customer Service Skills .....	3

### CREDITS

Total credits needed to complete this diploma

# 10

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** West Allis Campus, MATC Education Center at Walker's Square

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Offers wonderful training and confidence to the student when looking for a job. The student will acquire not only computer skills, but also customer service and math/budgeting skills.

### Career Outlook

Students completing this certificate gain a competitive advantage when applying for positions in a wide variety of office settings. Completers can perform exceptional customer service and a full range of clerical duties, including entering data into computer files, word-processing and preparing budgets.

### Program Learning Outcomes

- Perform basic knowledge of Office 365 (word processing), Excel (spreadsheets) and PowerPoint (presentations).
- Use effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform touch keying of the alphabetic keys.
- Perform touch keying of the numeric and symbol keys.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Bilingual Office Assistant

PROGRAM CODE: 31-106-6



Technical Diploma



**Location:** West Allis Campus

**Start Dates:** August, January and March

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

### (This program is for bilingual students)

Students fluent in English and a second language will be prepared for bilingual office positions after completing this program. You will use Microsoft software to produce documents in both languages, and you will use videoconferencing, the internet and other technologies. All courses, except foreign language instruction, are taught in English. Courses are offered in a variety of formats including online and blended, which may include traditional classroom instruction and an online component.

## Career Outlook

There is a strong need for bilingual office workers to serve diverse communities.

## Program Learning Outcomes

- Perform accurate workplace communications.
- Use technology skills for business tasks.
- Perform routine office procedures.
- Demonstrate professionalism and effective workplace relations.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡	3
<b>OFTECH-101</b> Office Technologies 1 .....	3
<b>OFTECH-103</b> Keyboard and Keypad .....	1
<b>OFTECH-119</b> Information Management .....	3
<b>OFTECH-183</b> Bilingual Customer Service Skills .....	3
<b>FLANG-123</b> Intermediate Spanish ‡ * ..... 3 (or) FLANG-218 Spanish 5: Conversation, Grammar and Current Topics ‡	3
<b>OFTECH-104</b> Budgeting Basics for Support Personnel.....	3
<b>OFTECH-122</b> Business English Essentials.....	3
<b>OFTECH-133</b> Business Document Production 1 ‡ .....	3
<b>OFTECH-165</b> Administrative Office Procedures ‡ .....	3
<b>OFTECH-184</b> MS Office: Word, Excel, Access and PowerPoint ‡ .....	3
<b>OFTECH-170</b> Meeting and Event Planning for Support Personnel .....	3
<b>OFTECH-190</b> Bilingual Office Assistant Internship ‡ .....	1

## CREDITS

Total credits needed to complete this diploma

# 35

‡ Prerequisite required.

\* Another foreign language course may be substituted for this course. The student must earn a minimum 2.5 GPA in the program's foreign language coursework.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Business Analyst

PROGRAM CODE: 10-102-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Learn techniques to gather and analyze information and business requirements, integrating best practices and relevant technologies. As a graduate, you will be prepared to function as a liaison with an organization’s stakeholders, such as IT and subject matter experts, in order to understand policies, structure and operation.

## Career Outlook

Opportunities exist within a variety of industries, including healthcare, manufacturing, insurance and finance.

## Program Learning Outcomes

- Perform elicitation, validation and analysis of requirements to meet a business need.
- Build relationships with stakeholders.
- Demonstrate leadership throughout business analysis efforts.
- Demonstrate professional communication in a business environment.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>BADM-134</b> Business Organization and Management.....	3
<b>BNLST-121</b> Business Analyst Planning and Monitoring .....	3
<b>BNLST-122</b> Business Analyst Essentials .....	3
<b>MATH-123</b> Math With Business Applications ‡..... (or) Any 200-level MATH course	3
<b>BADM-104</b> Business Statistics ‡ .....	3
<b>BNLST-123</b> Requirements of Life Cycle Management .....	3
<b>BNLST-124</b> Elicitation Techniques.....	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>LDRSHP-189</b> Team Building and Problem-Solving .....	3
<b>BNLST-127</b> Requirements Analysis and Design.....	3
<b>ENG-197</b> Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>ITDEV-149</b> Data Reporting .....	3
<b>LDRSHP-190</b> Leadership Development .....	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
<b>BNLST-135</b> Business Analyst Strategy Analysis .....	3
<b>BNLST-136</b> Business Analyst Solution Evaluation ‡.....	3
<b>BNLST-137</b> Business Analyst Internship ‡.....	1
<b>BNLST-138</b> Business Analyst Capstone.....	3
<b>QETECH-188</b> Project Management .....	3
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI course	

## CREDITS

Total credits needed to complete this degree

# 61

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Business Management

PROGRAM CODE: 10-102-3



Associate Degree



**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Attain a strong foundation in a range of areas including supervision, business communications, office technologies, human resources and marketing. Students have the opportunity to select courses with a career-ready emphasis or with a four-year college/university transfer emphasis.

## Career Outlook

Opportunities exist within different types of firms, as well as operating your own business.

## Program Learning Outcomes

- Plan the operations of a business across functional areas.
- Organize resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control business processes.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications ^ .....	3
<b>BADM-110</b> Business Communications With Technology ^..... (or) ENG-208 Technical Communications ‡ (or) ENG-202 English 2 ‡*	3
<b>BADM-134</b> Business Organization and Management ^ .....	3
<b>ENG-195</b> Written Communication ‡ ^ .....	3
(or) ENG-201 English 1 ‡*	
<b>ACCTG-110</b> Financial Accounting ^ .....	3
(or) ACCTG-111 Accounting 1	
<b>BADM-192</b> Risk Management and Insurance ^ .....	3
<b>ENG-197</b> Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course*	
<b>MKTG-102</b> Marketing Principles.....	3
<b>BADM-104</b> Business Statistics ‡ .....	3
<b>BADM-145</b> Small Business Management ‡ ^ .....	3
(or) LOGMGT-146 Operations Management	
<b>BADM-165</b> Legal Environment of Business.....	3
<b>ECON-195</b> Economics.....	3
(or) ECON-202 Principles of Microeconomics (or) Any 200-level ECON course*	
<b>MATH-107</b> College Mathematics ‡ ^ .....	3
(or) Any 200-level MATH course*	
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI course*	
<b>BADM-120</b> Business Analysis ‡ ^ .....	3
<b>BADM-155</b> Management Principles ‡ .....	3
<b>ELECTIVES</b> (Six credits) .....	6
<b>MATH-123</b> Math With Business Applications ‡.....	3
(or) Any 200-level MATH course*	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course*	

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

^ Counts toward earning the Business Management technical diploma.

\* Students seeking transfer to a four-year college/university should take 200-level courses.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Business Management

PROGRAM CODE: 31-102-3



Technical Diploma



**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Move forward toward your career goals with a strong foundation of business knowledge, including management, business communications, office technologies, accounting and risk management.

## Career Outlook

Graduates possess skills to begin a career in many business settings. Self-employed business owners also will profit from this program.

## Program Learning Outcomes

- Implement operational plans across functional areas.
- Direct individuals to meet organizational goals.
- Coordinate activities to meet organizational goals.



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
<b>ACCTG-110</b> Financial Accounting ^..... (or) ACCTG-111 Accounting 1	3
<b>BADM-106</b> MS Office for Business Applications ^ .....	3
<b>BADM-134</b> Business Organization and Management ^ .....	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>BADM-110</b> Business Communications With Technology..... (or) ENG-208 Technical Communications ‡ (or) ENG-202 English 2 ‡	3
<b>BADM-120</b> Business Analysis ‡.....	3
<b>BADM-145</b> Small Business Management ‡.....	3
<b>BADM-192</b> Risk Management and Insurance ^ .....	3
<b>MATH-107</b> College Mathematics ‡..... (or) Any 200-level MATH course	3

## CREDITS

Total credits needed to complete this diploma

# 27

‡ Prerequisite required.

^ Counts toward earning the Business Management Trainee certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Business Management Trainee

PROGRAM CODE: 61-102-1



Certificate



### COURSES

COURSES		CREDITS
<b>ACCTG-110</b>	Financial Accounting .....	3
<b>BADM-106</b>	MS Office for Business Applications.....	3
<b>BADM-134</b>	Business Organization and Management.....	3
<b>BADM-192</b>	Risk Management and Insurance.....	3

### CREDITS

Total credits needed to complete this certificate

# 12

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Get a strong start to enter the job market with knowledge of key components of business, including the fundamentals of accounting, management and insurance concepts.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Digital Marketing and Integrated Communications Technology

PROGRAM CODE: 31-104-9



Technical Diploma



COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
MKTG-102	Marketing Principles ..... 3
MKTG-118	Social Media Marketing ..... 3
MKTG-165	Digital Marketing ..... 3
MKTG-173	Marketing Research/Analytics ..... 3
MKTG-125	Advertising: Brands and Campaigns ..... 3
MKTG-134	Integrated Marketing Communications ..... 3
MKTG-144	Client Services ..... 3
MKTG-198	Visual Media Marketing ..... 3

CREDITS  
Total credits needed to complete this diploma

# 27

‡ Prerequisite required.  
All courses in this program count toward the Marketing associate degree.  
Program curriculum requirements are subject to change.  
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
MATC courses are offered in person, entirely online or partially online.  
Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Online Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

### Program Description

Develop a broad cross-section of knowledge, skills and abilities in digital marketing, advertising, marketing research, analytics, social media, client services and integrated marketing communications.

### Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

### Program Learning Outcomes

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare integrated content strategies.
- Utilize various digital marketing tools and analytics.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Entrepreneurship

PROGRAM CODE: 31-145-2



Technical Diploma



COURSES	CREDITS
<b>ECON-195</b> Economics.....	3
(or) Any 200-level ECON course ‡	
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>ENTREP-101</b> Introduction to Entrepreneurship ^.....	3
<b>ENTREP-102</b> New Product Development .....	3
<b>ENTREP-104</b> Business Plan ^ .....	3
<b>ACCTG-102</b> Basic Office Accounting .....	3
<b>ENTREP-103</b> Strategic Business Communication 1 .....	3
<b>ENTREP-105</b> Projects in Entrepreneurship .....	3
<b>MKTG-102</b> Marketing Principles.....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## CREDITS

Total credits needed to complete this diploma

# 30

### Program Description

This program will prepare you to unite your passion for your work with a viable business model. It also benefits those with a desire to own and operate their own business and is useful for individuals seeking new skills in their current jobs, career advancement or a job change. MATC's Entrepreneurship Center is on the Downtown Milwaukee Campus in Room M319.

### Career Outlook

As the global economy shifts to a leaner, faster environment, opportunities will be especially favorable for entrepreneurs.

### Program Learning Outcomes

- Demonstrate an entrepreneurial mindset.
- Develop a business canvas and/or plan.
- Outline business operational plan.
- Develop a business marketing plan.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

‡ Prerequisite required.

^ Counts toward earning the Entrepreneurship certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



# Entrepreneurship

PROGRAM CODE: 61-145-1



Certificate



## COURSES

<b>ENTREP-101</b>	Introduction to Entrepreneurship .....	<b>3</b>
<b>ENTREP-104</b>	Business Plan .....	<b>3</b>

## CREDITS

### CREDITS

Total credits needed to complete this certificate

# 6

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August, January and June

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

The courses in this program are especially geared to students interested in starting their own, or assisting with, a small or family-run business. Topics covered include customer discovery, Lean Startup methods and traditional business plans. The courses are offered in online, accelerated, blended formats. MATC's Entrepreneurship Center is on the Downtown Milwaukee Campus in Room M319.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Event Management

PROGRAM CODE: 10-109-6



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

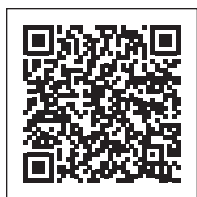
Build a dynamic career in event management, meeting planning, special event marketing, corporate and convention sales, or hotel marketing.

### Career Outlook

Festivals and events are among the key segments of the hospitality/tourism industry. In addition, many associations and corporations hire people to plan and conduct meetings.

### Program Learning Outcomes

- Apply project management strategies to an event.
- Manage financial resources.
- Design an event.
- Promote an event.
- Manage risk-management plan.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡	3
<b>HOTEL-122</b> Basic Hospitality Accounting ^..... 3	3
<b>HOTEL-135</b> Hospitality Professional Service and Development ..... 3	3
<b>MEET-151</b> Introduction to Hospitality/Tourism ^..... 3	3
<b>HOTEL-105</b> Hospitality Marketing, Sales and Revenue Strategy ^ .... 3	3
<b>HOTEL-124</b> Managerial Accounting for the Hospitality Industry..... 3	3
<b>HOTEL-127</b> Fundamentals of Meetings and Special Events ^ ..... 3	3
<b>MEET-180</b> Registration and Housing Logistics ‡ ^ ..... 3	3
<b>MEET-181</b> Exposition and Special Event Management ‡ ^ ..... 3	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>HOTEL-133</b> Supervision in the Hospitality Industry..... 3	3
<b>HOTEL-140</b> Food and Beverage Operations..... 3	3
<b>MEET-184</b> Risk Management and Crisis Planning ‡..... 3	3
<b>HOTEL-134</b> Hospitality Revenue Management ‡ ..... 3	3
<b>MEET-152</b> Fundamentals of Green Meetings ^..... 3	3
<b>HOTEL-130</b> Internship - Hotel/Meeting Management ‡ ..... 1	1
<b>MATH-123</b> Math With Business Applications..... 3 (or) Any 200-level MATH course	3
<b>MEET-108</b> Meetings Budget and Financial Management ‡ ..... 2	2
<b>MEET-178</b> Meeting and Convention Planning ‡..... 3	3
<b>PSYCH-199</b> Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course	3
<b>SOCSCI-172</b> Intro to Diversity Studies ..... 3 (or) Any 200-level SOCSCI course	3

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Special Event Management technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Financial Services

PROGRAM CODE: 31-114-3



Technical Diploma



**Location:** Downtown Milwaukee Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Begin your business career by learning accounting and financial principles for entry-level employment in banks, credit unions, insurance and consumer finance companies, and corporate finance departments.

## Career Outlook

Program graduates will have a solid foundation for a range of career opportunities within the industry.

## Program Learning Outcomes

- Create reports.
- Analyze investments.
- Sell financial products and services.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
ACCTG-111 Accounting 1 ^.....	4
BADM-134 Business Organization and Management ^ .....	3
BADM-165 Legal Environment of Business.....	3
FIN-110 Principles of Banking.....	3
MATH-123 Math With Business Applications ‡..... (or) Any 200-level MATH course	3
ACCTG-122 Accounting Software Applications ^.....	3
ENG-195 Written Communication ‡..... (or) ENG-201 English 1 ‡	3
FIN-120 Introduction to Money, Banking and Financial Markets ‡ ^.....	3
FIN-122 Investment Principles ‡ .....	3
FIN-170 Credit Management.....	3

## CREDITS

Total credits needed to complete this diploma

# 31

‡ Prerequisite required.

^ Counts toward earning the Financial Services Trainee certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Financial Services Trainee

PROGRAM CODE: 61-114-1



Certificate



COURSES		CREDITS
ACCTG-111	Accounting 1 .....	4
ACCTG-122	Accounting Software Applications .....	3
BADM-134	Business Organization and Management.....	3
FIN-120	Introduction to Money, Banking and Financial Markets ‡..	3

### CREDITS

Total credits needed to complete this certificate

# 13

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Attain the solid foundation in banking and finance concepts needed to enter the financial services industry.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Foundations of Lodging and Hospitality Management

PROGRAM CODE: 31-109-5



Technical Diploma



COURSES	CREDITS
<b>SOCSCI-172</b> Intro to Diversity Studies ..... 3 (or) Any 200-level SOCSCI course	3
<b>HOTEL-110</b> Front Office Procedures and Management .....	3
<b>HOTEL-122</b> Basic Hospitality Accounting .....	3
<b>HOTEL-135</b> Hospitality Professional Service and Development .....	3
<b>MEET-151</b> Introduction to Hospitality/Tourism .....	3
<b>HOTEL-105</b> Hospitality Marketing, Sales and Revenue Strategy .....	3
<b>HOTEL-112</b> Front Office Computerized Procedures ‡ .....	3
<b>HOTEL-124</b> Managerial Accounting for the Hospitality Industry .....	3
<b>HOTEL-120</b> Building Operations and Security .....	3
<b>HOTEL-127</b> Fundamentals of Meetings and Special Events .....	3
<b>HOTEL-150</b> Housekeeping Operations .....	2
<b>HOTEL-117</b> Hospitality Law and Liability .....	3
<b>HOTEL-133</b> Supervision in the Hospitality Industry .....	3
<b>HOTEL-140</b> Food and Beverage Operation .....	3
<b>HOTEL-134</b> Hospitality Revenue Management .....	3
<b>HOTEL-130</b> Internship .....	1

CREDITS  
Total credits needed to complete this diploma **45**

**Location:** Downtown Milwaukee Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

Employment opportunities in this diverse industry can be competitive as more job candidates enter this field.

### Career Outlook

Graduates possess skills to begin a career in many business settings. Self-employed business owners also will profit from this program.

### Program Learning Outcomes

- Apply fundamentals to the operations within a hospitality organization.
- Demonstrate entry-level use of hospitality technology.
- Identify processes to meet organizational goals.
- Identify the various components that make up the hospitality industry.
- Identify resources used in the hospitality industry for problem solving.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Hospitality Management

PROGRAM CODE: 10-109-2



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

To enter the hotel/motel industry at mid-management or supervisory levels, you will attain the required skills and experience employers seek. Although this is a day program, selected courses are scheduled for evenings and weekends on a rotating basis.

### Career Outlook

You will be prepared for employment in a vital segment of the nation's economy.

### Program Learning Outcomes

- Plan the operations within a hospitality organization.
- Organize hospitality resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control hospitality processes/procedures.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ^ ..... 3 (or) Any 200-level ENG course ‡	3
<b>HOTEL-110</b> Front Office Procedures and Management ^ ..... 3	3
<b>HOTEL-122</b> Basic Hospitality Accounting ^ ..... 3	3
<b>HOTEL-135</b> Hospitality Professional Service and Development ^ ..... 3	3
<b>MEET-151</b> Introduction to Hospitality/Tourism ^ ..... 3	3
<b>HOTEL-105</b> Hospitality Marketing, Sales and Revenue Strategy ^ ..... 3	3
<b>HOTEL-112</b> Front Office Computerized Procedures ‡ ^ ..... 3	3
<b>HOTEL-120</b> Building Operations and Security ^ ..... 3	3
<b>HOTEL-124</b> Managerial Accounting for the Hospitality Industry ‡ ..... 3	3
<b>HOTEL-127</b> Fundamentals of Meetings and Special Events ^ ..... 3	3
<b>HOTEL-150</b> Housekeeping Operations ^ ..... 2	2
<b>GEOSCI-112</b> Principles of Sustainability ..... 3 (or) Any 200-level GEOSCI or BIOSCI course	3
<b>HOTEL-117</b> Hospitality Law and Liability ^ ..... 3	3
<b>HOTEL-134</b> Hospitality Revenue Management ^ ..... 3	3
<b>HOTEL-140</b> Food and Beverage Operations ..... 3	3
<b>PSYCH-199</b> Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>MATH-134</b> Mathematical Reasoning ..... 3 (or) Any 200-level MATH course	3
<b>HOTEL-130</b> Internship – Hotel/Meeting Management ‡ ..... 1	1
<b>HOTEL-133</b> Supervision in the Hospitality Industry ..... 3	3
<b>SOCSCI-172</b> Intro to Diversity Studies ..... 3 (or) Any 200-level SOCSCI course	3

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Foundations of Lodging and Hospitality Management technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Human Resources

PROGRAM CODE: 10-116-1



Associate Degree



COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>ENG-195</b> Written Communication ‡ .....	3
(or) Any 200-level ENG course	
<b>HRMGT-133</b> Legal Issues and Employment Law .....	3
<b>HRMGT-193</b> Human Resource Management .....	3
<b>HRMGT-198</b> Business Ethics .....	3
<b>BADM-134</b> Business Organization and Management .....	3
<b>HRMGT-196</b> Recruiting and Selection .....	3
<b>LDRSHP-195</b> Communication Strategies for Leaders .....	3
<b>MATH-134</b> Mathematical Reasoning .....	3
(or) Any 200-level MATH course	
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>ACCTG-142</b> Payroll Accounting .....	2
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) SPEECH-210 Conflict and Communication	
<b>HRMGT-136</b> Safety in the Workplace .....	3
<b>HRMGT-169</b> Diversity and Change Management .....	3
<b>HRMGT-197</b> Employee Training and Development .....	3
<b>LDRSHP-190</b> Leadership Development .....	3
<b>HRMGT-124</b> Human Capital Analysis ‡ .....	3
<b>HRMGT-170</b> Employee Relations and Labor Relations .....	3
<b>HRMGT-194</b> Fundamentals of Compensation .....	3
<b>LOGMGT-105</b> Enterprise Resource Planning .....	3
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI course	

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

Gain entry-level skills in a variety of areas related to the human resources profession, including recruitment, selection, training and development, employee and labor relations, and compensation and benefits.

### Career Outlook

New legislation and court rulings are expected to increase demand for human resources personnel and labor relations experts.

### Program Learning Outcomes

- Design an organizational workforce plan.
- Develop training programs.
- Analyze organizational total rewards programs.
- Incorporate employment law into business practices.
- Apply employee relations techniques.

### CREDITS

Total credits needed to complete this degree

**62**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Leadership Development

PROGRAM CODE: 10-196-1



Associate Degree



**Location:** Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Develop effective leadership skills crucial to today's workforce. This program is designed for those in a full-time leadership position, as well as individuals seeking preparation for a future leadership role. Core courses are taught online in eight-week sessions; remaining technical courses are offered as online, hybrid and in-person options.

## Career Outlook

Students can use the skills learned in this degree in any career. Those in leadership roles are focused, disciplined and receptive to new ideas, and they have a clear vision of how to achieve their goals.

## Program Learning Outcomes

- Utilize continuous improvement strategies to achieve performance excellence.
- Apply effective leadership skills.
- Support organizational human resource practices.
- Perform management functions to achieve organizational objectives.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>LDRSHP-164</b> Personal Leadership Strategies .....	3
<b>LDRSHP-189</b> Team Building and Problem-Solving .....	3
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>ACCTG-126</b> Accounting for Managers .....	3
(or) ACCTG-110 Financial Accounting	
<b>HRMGT-193</b> Human Resource Management .....	3
<b>LDRSHP-168</b> Organizational Development .....	3
<b>LDRSHP-195</b> Communication Strategies for Leaders .....	3
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI course	
<b>ECON-195</b> Economics .....	3
(or) Any 200-level SOCSCI course	
<b>HRMGT-133</b> Legal Issues and Employment Law .....	3
(or) BADM-165 Legal Environment of Business	
<b>HRMGT-169</b> Diversity and Change Management .....	3
<b>HRMGT-198</b> Business Ethics .....	3
<b>LDRSHP-191</b> Supervision .....	3
<b>ELECTIVES</b> (Six credits) .....	6
<b>ENG-196</b> Oral/Interpersonal Communication ‡ .....	3
(or) SPEECH-210 Conflict and Communication	
<b>LDRSHP-190</b> Leadership Development .....	3
<b>MATH-134</b> Mathematical Reasoning .....	3
(or) Any 200-level MATH course	

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Marketing

PROGRAM CODE: 10-104-3



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Develop a broad base of industry-required knowledge and abilities in advertising, sales, promotion, marketing research, digital marketing, social media, client services and customer experience planning.

## Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

## Program Learning Outcomes

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare selling strategies.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>ENG-195</b> Written Communication ‡ ^ .....	3
(or) ENG-201 English 1 ‡	
<b>MKTG-102</b> Marketing Principles ^ * .....	3
<b>MKTG-104</b> Selling Principles * .....	3
<b>ACCTG-110</b> Financial Accounting .....	3
<b>MATH-107</b> College Mathematics ‡ .....	3
(or) Any 200-level MATH course	
<b>MKTG-125</b> Advertising: Brands and Campaigns ^ .....	3
<b>MKTG-173</b> Marketing Research/Analytics ^ * .....	3
<b>MKTG-198</b> Visual Media Marketing ^ .....	3
<b>BADM-110</b> Business Communications With Technology .....	3
<b>ECON-195</b> Economics .....	3
(or) Any 200-level ECON course	
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) Any 200-level ENG course	
<b>MKTG-118</b> Social Media Marketing ^ .....	3
<b>MKTG-165</b> Digital Marketing ^ .....	3
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>BADM-134</b> Business Organization and Management .....	3
<b>MKTG-106</b> Retail and Consumer Marketing ‡ * .....	3
<b>MKTG-107</b> Customer Experience * .....	3
<b>MKTG-134</b> Integrated Marketing Communications ^ .....	3
<b>MKTG-144</b> Client Services ^ * .....	3
<b>MKTG-175</b> Marketing Internship ‡ .....	1

## CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

^ Counts toward earning the Digital Marketing and Integrated Communications technical diploma.

\* Counts toward earning the Sales and Customer Experience technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



# Marketing – Online Accelerated

PROGRAM CODE: 10-104-3



Associate Degree



**Location:** Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

Develop a broad base of industry-required knowledge and abilities in advertising, sales, promotion, marketing research, digital marketing, social media, client services and customer experience planning.

### Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

### Program Learning Outcomes

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare selling strategies.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>ENG-195</b> Written Communication ‡ ^ .....	3
(or) ENG-201 English 1 ‡	
<b>MKTG-102</b> Marketing Principles ^ * .....	3
<b>MKTG-104</b> Selling Principles * .....	3
<b>ACCTG-110</b> Financial Accounting .....	3
<b>MATH-107</b> College Mathematics ‡ .....	3
(or) Any 200-level MATH course	
<b>MKTG-125</b> Advertising: Brands and Campaigns ^ .....	3
<b>MKTG-173</b> Marketing Research/Analytics ^ * .....	3
<b>MKTG-198</b> Visual Media Marketing ^ .....	3
<b>BADM-110</b> Business Communications With Technology .....	3
<b>ECON-195</b> Economics .....	3
(or) Any 200-level ECON course	
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) Any 200-level ENG course	
<b>MKTG-118</b> Social Media Marketing ^ .....	3
<b>MKTG-165</b> Digital Marketing ^ .....	3
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>BADM-134</b> Business Organization and Management .....	3
<b>MKTG-106</b> Retail and Consumer Marketing ‡ * .....	3
<b>MKTG-107</b> Customer Experience * .....	3
<b>MKTG-134</b> Integrated Marketing Communications ^ .....	3
<b>MKTG-144</b> Client Services ^ * .....	3
<b>MKTG-175</b> Marketing Internship ‡ .....	1

### CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

^ Counts toward earning the Digital Marketing and Integrated Communications technical diploma.

\* Counts toward earning the Sales and Customer Experience technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

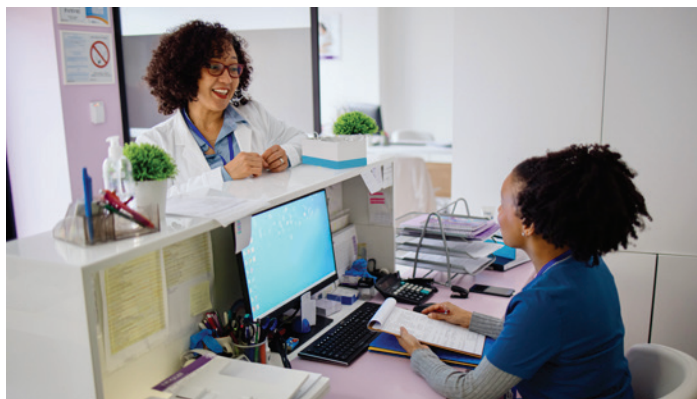
Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Medical Admin Specialist

PROGRAM CODE: 31-160-4



Technical Diploma



**Location:** West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. Employers may require background checks, drug testing, immunizations or signed statements of confidentiality.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

If you have an interest in the business or academic aspects of the health field, this program is a good fit for your career plans. Courses are offered in a blended format, which may include traditional classroom instruction and an online component.

## Career Outlook

Work may include assisting with academic research, preparing electronic medical records or processing insurance claims. Employment opportunities are expected to increase.

## Program Learning Outcomes

- Perform routine healthcare administrative procedures.
- Process insurance claims.
- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Maintain internal and external relationships.
- Model professionalism in the workplace.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
<b>BRHLTH-124</b> Medical Office Terminology 1 ^.....	3
<b>OFTECH-101</b> Office Technologies 1 ^.....	3
<b>OFTECH-103</b> Keyboard and Keypad ^.....	1
<b>OFTECH-122</b> Business English Essentials ^.....	3
<b>OFTECH-119</b> Information Management .....	3
<b>OFTECH-104</b> Budget Basics for Support Personnel .....	3
<b>BRHLTH-125</b> Medical Office Terminology 2 ‡ ^.....	3
<b>OFTECH-133</b> Business Document Production 1 ‡ .....	3
<b>BIOSCI-189</b> Basic Anatomy ^..... (or) Any 200-level BIOSCI course	3
<b>BRHLTH-135</b> Medical Document Production ‡.....	3
<b>BRHLTH-140</b> Electronic Health Records: Administrative Application ‡.....	3
<b>BRHLTH-142</b> Administrative Procedures for the Medical Office ‡.....	3
<b>BRHLTH-170</b> Medical Insurance Principles and Coding ‡ ^.....	3
<b>BADM-110</b> Business Communications With Technology .....	3
<b>BRHLTH-112</b> Computerized Medical Billing ‡ ^.....	3
<b>BRHLTH-174</b> Medical Claims Reimbursement ‡ ^.....	2
<b>BRHLTH-197</b> Medical Office Career Investigation ‡ ^.....	3

## CREDITS

Total credits needed to complete this diploma

**48**

‡ Prerequisite required.

^ Counts toward earning the Medical Billing technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Medical Billing and Reimbursement Specialist

PROGRAM CODE: 31-160-6



Technical Diploma



**Location:** West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** A high school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

To perform essential functions of healthcare administration, you will gain knowledge of office accounting, medical insurance, efficient office practices, and basic human anatomy. Courses are offered in a blended format, which may include traditional classroom and online instruction.

## Career Outlook

Employment opportunities are expected to increase. In addition to healthcare facilities, medical billers work in medical schools and government agencies.

## Program Learning Outcomes

- Perform routine healthcare administrative procedures.
- Process insurance claims.
- Apply technology skills to business and administrative tasks.
- Maintain internal and external relationships.
- Model professionalism in the workplace.



## Complete Program Details

**QUESTIONS?** 414-456-5323 or leadpathway@matc.edu

COURSES	CREDITS
BRHLTH-124 Medical Office Terminology 1 .....	3
OFTECH-101 Office Technologies 1 .....	3
OFTECH-103 Keyboard and Keypad .....	1
OFTECH-122 Business English Essentials .....	3
BIOSCI-189 Basic Anatomy .....	3
OFTECH-104 Budget Basics Support Personnel .....	3
OFTECH-133 Business Document Production 1 ‡ .....	3
BRHLTH-125 Medical Office Terminology 2 ‡ .....	3
BRHLTH-140 Electronic Health Records ‡ .....	3
BRHLTH-170 Medical Insurance Principles and Coding ‡ .....	3
BRHLTH-112 Computerized Medical Billing ‡ .....	3
BRHLTH-174 Medical Claims Reimbursement ‡ .....	2
BRHLTH-197 Medical Office Career Investigation ‡ .....	3

## CREDITS

Total credits needed to complete this diploma

# 36

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Office Technology Assistant

PROGRAM CODE: 30-160-1



Technical Diploma



COURSES	CREDITS
<b>OFTECH-101</b> Office Technologies 1 .....	3
<b>OFTECH-103</b> Keyboard and Keypad .....	1
<b>OFTECH-119</b> Information Management .....	3
<b>OFTECH-122</b> Business English Essentials.....	3
<b>OFTECH-182</b> Customer Service Skills.....	3
<b>OFTECH-104</b> Budgeting Basics for Support Personnel.....	3
<b>OFTECH-133</b> Business Document Production 1 ‡.....	3
<b>OFTECH-165</b> Administrative Office Procedures 1 ‡ .....	3
<b>OFTECH-184</b> MS Office: Word, Excel, Access and PowerPoint ‡ .....	3

### CREDITS

Total credits needed to complete this diploma

# 25

**Location:** Downtown Milwaukee Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

To boost your career, gain skills in the updated technology that today's offices rely on every day. Coursework includes learning administrative office procedures, studying basic accounting, using the software prominent in office environments, and developing strong keyboarding skills. Courses are offered in a variety of formats including online and blended, which may include traditional classroom instruction and an online component.

### Career Outlook

This occupation ranks among those with the largest number of job openings. Opportunities should be best for applicants with extensive knowledge of software applications.

### Program Learning Outcomes

- Perform accurate workplace communications.
- Use technology skills for business tasks.
- Perform routine office procedures.
- Demonstrate professionalism and effective workplace relationships.



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Property Management

PROGRAM CODE: 61-194-2



Certificate



## COURSES

<b>RLEST-180</b>	Principles of Real Estate.....	<b>3</b>
<b>RLEST-190</b>	Introduction to Property Management .....	<b>3</b>

## CREDITS

### CREDITS

Total credits needed to complete this certificate

# 6

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Online Campus, West Allis Campus

**Start Dates:** June, August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Unlock the potential that property management provides in today's real estate market. Leases, rent scheduling, renting techniques, tenant selection and relations with property owners are some of the topics covered in this program.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Real Estate

PROGRAM CODE: 10-194-1



Associate Degree



**Location:** Online Campus, West Allis

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This comprehensive, state-approved program prepares you for a range of careers in the real estate field, including sales and brokerage, building inspection, and property management. Courses that meet educational requirements to qualify for state licensing exams are part of the curriculum.

## Career Outlook

Options include working for real estate companies or as a self-employed real estate specialist. A willingness to work evenings and weekends is important.

## Program Learning Outcomes

- Prepare real estate contracts and documents in accordance with applicable laws.
- Apply mathematical, financing and investment principles to real estate transactions.
- Apply concepts of property valuation to real estate transactions.
- Identify building construction and environmental issues in real estate transactions.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications.....	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>RLEST-180</b> Principles of Real Estate ^ * + .....	3
<b>RLEST-182</b> Real Estate Law ^ + .....	3
<b>RLEST-189</b> Introduction to Home Inspection.....	3
<b>MATH-123</b> Math With Business Applications ‡..... (or) Any 200-level MATH course	3
<b>RLEST-181</b> Principles of Commercial Real Estate .....	3
<b>RLEST-188</b> Listing, Selling and Sales Tools.....	3
<b>RLEST-190</b> Introduction to Property Management * .....	3
<b>BADM-110</b> Business Communications With Technology .....	3
<b>ECON-195</b> Economics..... (or) Any 200-level ECON course	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
<b>RLEST-184</b> Real Estate Mortgage Lending.....	3
<b>RLEST-185</b> Real Estate Investment Principles.....	3
<b>ACCTG-110</b> Financial Accounting .....	3
<b>BADM-134</b> Business Organization and Management.....	3
<b>MKTG-102</b> Marketing Principles.....	3
<b>RLEST-183</b> Real Estate Broker Preparation ^ .....	3
<b>RLEST-187</b> Broker Management ^ .....	3

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Real Estate Broker Associate technical diploma.

\* Counts toward earning the Property Management certificate.

+ Counts toward earning the Real Estate Salesperson certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is approved by:

State of Wisconsin Department of Safety and Professional Services  
4822 Madison Yards Way  
Madison, WI 53705; 608-266-2112  
<https://dsps.wi.gov/Pages/Professions/RESalesperson/Default.aspx>

# Real Estate Broker Associate

PROGRAM CODE: 30-194-1



Technical Diploma



COURSES	CREDITS
RLEST-180 Principles of Real Estate ^ .....	3
RLEST-182 Real Estate Law ^ .....	3
RLEST-183 Real Estate Broker Preparation.....	3
RLEST-187 Broker Management.....	3

**CREDITS**

Total credits needed to complete this diploma

**12**

^ Counts toward earning the Real Estate Salesperson certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

**Program Description**

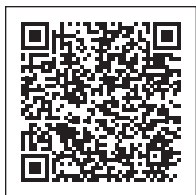
Address your interests in the buying and selling of real estate. This program's coursework prepares you to operate a real estate office or work for a commercial real estate firm overseeing real estate transactions.

**Career Outlook**

Employment of real estate brokers and sales agents in the United States is projected to grow 6% from 2016 to 2026.

**Program Learning Outcomes**

- Prepare real estate contracts and documents in accordance with applicable laws.
- Apply concepts of property valuation to real estate transactions.
- Identify environmental issues in real estate transactions.
- Demonstrate real estate brokerage business management skills.



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Real Estate Salesperson

PROGRAM CODE: 61-194-1



Certificate



## COURSES

<b>RLEST-180</b>	Principles of Real Estate.....	<b>3</b>
<b>RLEST-182</b>	Real Estate Law .....	<b>3</b>

## CREDITS

<b>CREDITS</b>	<b>6</b>
Total credits needed to complete this certificate	

Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Online Campus, West Allis Campus  
**Start Dates:** June, August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** No

### Program Description

The two courses in this certificate satisfy the educational requirement that must be met prior to taking the State of Wisconsin Real Estate Salesperson Exam. You will learn about the duties and responsibilities of a real estate professional.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)



# Sales and Customer Experience

PROGRAM CODE: 30-104-10



Technical Diploma



COURSES		CREDITS
MKTG-102	Marketing Principles.....	3
MKTG-104	Selling Principles.....	3
MKTG-106	Retail and Consumer Marketing ‡ .....	3
MKTG-107	Customer Experience .....	3
MKTG-144	Client Services .....	3
MKTG-173	Marketing Research/Analytics.....	3

CREDITS  
Total credits needed to complete this diploma **18**

‡ Prerequisite required.  
All courses in this program count toward the Marketing associate degree.  
Program curriculum requirements are subject to change.  
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
MATC courses are offered in person, entirely online or partially online.  
Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Online Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

Prepare for a successful sales career by developing knowledge of commercial and consumer markets, sales, client services and customer experience planning. Focusing on the latest sales trends and technologies, this program is designed for the sales novice or professionals looking to refresh their skills.

## Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

## Program Learning Outcomes

- Develop marketing strategies.
- Develop selling strategies.
- Deliver sales presentations.
- Apply customer experience and client services strategies.
- Analyze sales information.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Special Event Management

PROGRAM CODE: 31-109-2



Technical Diploma



**Location:** Downtown Milwaukee Campus, Oak Creek Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Put your creativity and planning skills to work and begin a career in event management. This program covers a broad range of topics related to the hospitality industry, including marketing, contracts and accounting.

## Career Outlook

Associations and corporations hire people to arrange, plan and conduct special events in a wide range of venues. In this field there are opportunities for skilled, customer service-focused employees.

## Program Learning Outcomes

- Design a special event.
- Apply the fundamentals strategies to a special event.
- Manage the fundamentals of financial resources.
- Identify the various components that make up the hospitality industry.
- Manage the fundamentals of housing and registration process.



## Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
HOTEL-122	Basic Hospitality Accounting ..... 3
MEET-151	Introduction to Hospitality/Tourism ..... 3
HOTEL-105	Hospitality Marketing, Sales and Revenue Strategy ..... 3
HOTEL-127	Fundamentals of Meetings and Special Events ..... 3
HOTEL-135	Hospitality Professional Service and Development ..... 3
MEET-180	Registration and Housing Logistics ‡ ..... 3
MEET-181	Exposition and Special Event Management ‡ ..... 3
HOTEL-124	Managerial Accounting for the Hospitality Industry ‡ ..... 3
MEET-184	Risk Management and Crisis Planning ‡ ..... 3
HOTEL-140	Food and Beverage Operations ..... 3
HOTEL-133	Supervision in the Hospitality Industry ..... 3
HOTEL-134	Hospitality Revenue Management ‡ ..... 3
MEET-152	Fundamentals of Green Meetings ‡ ..... 3
MEET-178	Meetings & Convention Planning ‡ ..... 3
HOTEL-130	Internship in Hotel/Hospitality Management ‡ ..... 1
MEET-108	Meeting Budgets and Financial Management ‡ ..... 2

## CREDITS

Total credits needed to complete this diploma

**48**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Supply Chain Management

PROGRAM CODE: 10-182-1



Associate Degree



**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

If you want to pursue a career in logistics, transportation, distribution, purchasing, production or inventory control, this program will interest you. Areas of study include supply chains and quality management. The program's blended format is 50% online and 50% classroom.

### Career Outlook

The projected employment outlook is steady for the field of supply chain management. Positions may require travel and overtime.

### Program Learning Outcomes

- Implement supply management practices in a global environment.
- Demonstrate operations management techniques across product and service industries.
- Analyze logistic interfaces and activities in a supply chain.
- Evaluate demand management techniques and customer service policies

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications ^ *	3
<b>ENG-195</b> Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
<b>LOGMGT-107</b> Blueprints for Career Success ^ *	3
<b>LOGMGT-146</b> Operations Management ^ *	3
<b>LOGMGT-164</b> Supply Chain Management ^ *	3
<b>BADM-165</b> Legal Environment of Business.....	3
<b>ECON-195</b> Economics..... (or) Any 200-level ECON course	3
<b>ENG-197</b> Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>LOGMGT-170</b> Procurement ^ .....	3
<b>LOGMGT-190</b> Logistics * .....	3
<b>LOGMGT-105</b> Enterprise Resource Planning.....	3
<b>LOGMGT-144</b> Production Planning and Inventory Control ^.....	3
<b>LOGMGT-184</b> International Logistics – Transportation/Documentation * ..	3
<b>MATH-123</b> Math With Business Applications ‡..... (or) Any 200-level MATH course	3
<b>QETECH-188</b> Project Management .....	3
<b>ACCTG-126</b> Accounting for Managers .....	3
<b>BADM-104</b> Business Statistics ‡ .....	3
<b>LOGMGT-106</b> eCommerce Logistics .....	3
<b>LOGMGT-191</b> Integrated Supply Chain Management ‡ .....	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) Any 200-level PSYCH course	3

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Supply Management technical diploma.

\* Counts toward earning the Transportation – Logistics technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# Supply Management

PROGRAM CODE: 30-182-1



Technical Diploma



COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>LOGMGT-107</b> Blueprints for Career Success .....	3
<b>LOGMGT-164</b> Supply Chain Management.....	3
<b>LOGMGT-144</b> Production Planning and Inventory Control .....	3
<b>LOGMGT-146</b> Operations Management .....	3
<b>LOGMGT-170</b> Procurement.....	3

### CREDITS

Total credits needed to complete this diploma

# 18

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Oak Creek Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent and basic computer skills

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Begin a career in supply chain management, purchasing or materials management through this program. You will gain skills in a variety of areas, including inventory control, vendor negotiations and purchasing procedures. The program's blended format is 50% online and 50% classroom at the Oak Creek Campus; also offered 100% online.

### Career Outlook

Employment of purchasing managers, buyers and purchasing agents is expected to remain steady in most industries.

### Program Learning Outcomes

- Define (plan) operations, transportation, procurement and distribution.
- Measure operations, transportation, procurement and distribution.
- Analyze operations, transportation, procurement and distribution.
- Improve operations, transportation, procurement and distribution.
- Control operations, transportation, procurement and distribution.



### Complete Program Details

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)



# Transportation – Logistics

PROGRAM CODE: 30-182-2



Technical Diploma



COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications .....	3
<b>LOGMGT-107</b> Blueprints for Career Success .....	3
<b>LOGMGT-164</b> Supply Chain Management .....	3
<b>LOGMGT-146</b> Operations Management .....	3
<b>LOGMGT-184</b> International Logistics – Transportation/Documentation ...	3
<b>LOGMGT-190</b> Logistics .....	3

**CREDITS**

Total credits needed to complete this diploma

**18**

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Oak Creek Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent and basic computer skills

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

**Program Description**

Prepare for success in the growing transportation and logistics industry, which is involved with managing the movement of products and supplies. The program's blended format is 50% online and 50% classroom at the Oak Creek Campus; also offered 100% online.

**Career Outlook**

Employment opportunities are expected to grow as supply and distribution systems become increasingly complex, and important, in the global economy.

**Program Learning Outcomes**

- Define (plan) operations, transportation, procurement and distribution.
- Measure operations, transportation, procurement and distribution.
- Analyze operations, transportation, procurement and distribution.
- Improve operations, transportation, procurement and distribution.
- Control operations, transportation, procurement and distribution.



**Complete Program Details**

**QUESTIONS?** 414-456-5323, 414-297-8903 or [leadpathway@matc.edu](mailto:leadpathway@matc.edu)

# COMMUNITY & HUMAN SERVICES

A team of experienced and dedicated professionals, along with state-of-the-art facilities, prepare you for careers that provide vital services to our 21st century communities. Whether your goal is to earn a certificate, technical diploma or associate degree, transfer to a four-year college, or enter the workforce, our programs help you build the foundational skills needed to compete and succeed in your chosen field. With courses offered at four MATC campuses, we strive to provide our programs when and where you need them.

## Pathway Offices

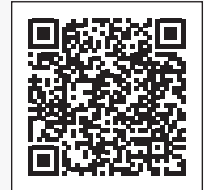
**Downtown Milwaukee Campus**, T Building, Room T200, **414-297-8837**

**Mequon Campus**, Room A108

**Oak Creek Campus**, Room A121, **414-570-4426**

**West Allis Campus**, Room 103

[servepathway@matc.edu](mailto:servepathway@matc.edu)



Aesthetician TD  
Aesthetician Skin Care Therapist AD  
Barber TD  
Child Care Services TD  
Cosmetology TD  
Criminal Justice Studies AD  
Early Childhood Education AD  
Emergency Medical Technician TD  
Emergency Medical Technician – Advanced TD  
Emergency Medical Technician – Paramedic TD  
Environmental Health and Water Quality Technology AD

Fire Protection Technician AD  
Funeral Service AD  
Human Service Associate AD  
Legal Studies/Paralegal AD  
Nail Technician TD  
Paramedic Technician AD  
Post-Baccalaureate Legal Studies/Paralegal TD  
Preschool C  
Water Technician C



**AD** Associate Degree program  
**TD** Technical Diploma program  
**C** Certificate program

# Aesthetician

PROGRAM CODE: 30-502-3



Technical Diploma



COURSES	CREDITS
<b>AESTHE-131</b> Introduction to Aesthetics Spa ‡	3
<b>AESTHE-108</b> Facial Treatments	3
<b>AESTHE-117</b> Salon Ecology/Decontamination	2
<b>AESTHE-145</b> Spa Science Fundamentals	2
<b>AESTHE-146</b> Spa Product Sciences ‡	2
<b>AESTHE-104</b> Spa Treatments ‡	3
<b>AESTHE-132</b> Intermediate Spa Services ‡	2
<b>AESTHE-109</b> Hair Removal Techniques ‡	1
<b>AESTHE-135</b> Aesthetician Board Prep ‡	2
<b>AESTHE-134</b> Business Fundamentals	2

**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Learn skin care techniques and work with clients at Skyn, the state-of-the-art spa facility at MATC’s Mequon Campus. This program is in compliance with the Wisconsin Department of Safety and Professional Services. Program students gain eligibility to take the state board aesthetician licensing examination to become practitioners and work in upscale spas or alongside med-spa professionals.

## Career Outlook

Employment opportunities include day spas, beauty salons, resorts, hotels, fitness centers and cruise ships. With additional training and licensing, you could become an independent contractor, a salon/spa owner or aesthetician instructor.

## Program Learning Outcomes

- Perform consultations and skin analysis.
- Perform facial and body treatments.
- Perform hair removal services.
- Perform microdermabrasion and chemical exfoliation.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

## CREDITS

Total credits needed to complete this diploma

# 22

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Note: In addition to tuition and textbooks, students must purchase a tool/equipment kit.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is in compliance with:  
 State of Wisconsin Department of Safety and Professional Services  
 4822 Madison Yards Way  
 Madison, WI 53705; 608-266-2112  
<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>.

# Aesthetician Skin Care Therapist

PROGRAM CODE: 10-502-2



Associate Degree



**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Learn advanced aesthetics topics, including spa wellness (oncology aesthetics, aromatherapy, introduction to Reiki and reflexology), advanced hair removal, exfoliation, lash extensions, microblading, lash/brow tinting, and aesthetic machines along with branding and marketing strategies. Also, gain hands-on learning experience at Skyn, the state-of-the-art spa facility at MATC's Mequon Campus.

## Program Learning Outcomes

- Perform consultations and skin analysis.
- Perform facial and body treatments.
- Perform hair removal services.
- Demonstrate makeup application.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>AESTHE-131</b> Introduction to Aesthetics Spa Service ‡ ^.....	3
<b>AESTHE-108</b> Facial Treatments ^ .....	3
<b>AESTHE-117</b> Salon Ecology/Decontamination ^.....	2
<b>AESTHE-145</b> Spa Science Fundamentals ^.....	2
<b>AESTHE-146</b> Spa Product Sciences ‡ ^ .....	2
<b>AESTHE-104</b> Spa Treatments ‡ ^.....	3
<b>ENG-195</b> Written Communication ‡ ^ .....	3
(or) Any 200-level English course ‡	
<b>AESTHE-132</b> Intermediate Spa Services ‡ ^ .....	2
<b>AESTHE-109</b> Hair Removal Techniques ‡ ^.....	1
<b>AESTHE-135</b> Aesthetician Board Prep ‡ ^.....	2
<b>AESTHE-134</b> Business Fundamentals ^ .....	2
<b>AESTHE-106</b> Advanced Makeup Techniques ‡ ^.....	1
<b>AESTHE-107</b> Advanced Spa Treatments ‡ ^.....	1
<b>MATH-123</b> Math With Business Applications ‡.....	3
(or) Any 200-level MATH course	
<b>AESTHE-133</b> Advanced Spa Services ‡ ^.....	3
<b>AESTHE-136</b> Oncology Aesthetics.....	2
<b>AESTHE-137</b> Advanced Exfoliation .....	2
<b>AESTHE-138</b> Advanced Hair Removal.....	2
<b>AESTHE-139</b> Introduction to Holistic Healing .....	2
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>AESTHE-140</b> Advanced Lash Techniques .....	2
<b>AESTHE-141</b> Advanced Brow Techniques.....	2
<b>AESTHE-143</b> 21st Century Branding and Marketing .....	3
<b>AESTHE-144</b> Master Spa Services .....	3
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI course	

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Aesthetician technical diploma

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is in compliance with the State of Wisconsin Department of Safety and Professional Services

4822 Madison Yards Way, Madison, WI 53705

608-266-2112;

<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>.



# Barber

PROGRAM CODE: 31-502-5



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

This program prepares you to work in the barbering profession, in compliance with the Wisconsin Department of Safety and Professional Services. You will learn shampooing, cutting and hairstyling techniques, shaving, beard trimming, hair coloring, and other services. Graduates of this program are eligible to take the state board licensing exam.

## Career Outlook

Employment prospects for licensed barbers are excellent. Many barbers are self-employed, either owning their business or leasing booth space.

## Program Learning Outcomes

- Apply safety and sanitation procedures.
- Adhere to the current Wisconsin administrative codes and statutes for barbers.
- Demonstrate interpersonal skills for success.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>BARCOS-300</b> Shampoo and Scalp Treatments.....	2
<b>BARBER-336</b> Introduction to Barber Theory ‡.....	1
<b>BARBER-337</b> Intro to Barber Haircutting ‡.....	2
<b>BARBER-341</b> Shaving/Facials ‡.....	2
<b>BARBER-347</b> Intro to Barber Hairstyling ‡.....	1
<b>BARCOS-324</b> Business Skills for Barbers/Cosmetologists.....	1
<b>BARBER-344</b> Intermediate Barber Theory ‡.....	1
<b>BARBER-345</b> Intermediate Barber Haircut ‡.....	2
<b>BARBER-346</b> Barber Permanent Waving ‡.....	1
<b>BARBER-348</b> Introduction to Barber Guest Services ‡.....	2
<b>BARBER-338</b> Barber Chemical Relaxing ‡.....	1
<b>BARCOS-319</b> Natural Hair Care and Braiding.....	1
<b>BARBER-318</b> Advanced Barber Theory ‡.....	1
<b>BARBER-322</b> Intermediate Barber Guest Services ‡.....	1
<b>BARBER-349</b> Advanced Barber Haircutting ‡.....	1
<b>BARBER-350</b> Barber Chemical Services 3 ‡.....	2
<b>BARBER-351</b> Advanced Barber Hairstyle ‡.....	1
<b>BARBER-353</b> Barber Externship ‡.....	2
<b>BARCOS-330</b> Business Management Skills for Barbers/Cosmetologists ‡.....	2
<b>BARBER-354</b> Advanced Barber Guest Services ‡.....	1
<b>BARBER-352</b> Barber State Board Reviewer ‡.....	2
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3

## CREDITS

Total credits needed to complete this diploma

# 33

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is in compliance with:  
 State of Wisconsin Department of Safety and Professional Services  
 4822 Madison Yards Way  
 Madison, WI 53705; 608-266-2112  
<https://dsps.wi.gov/Pages/Professions/Barber/Default.aspx>.

# Child Care Services

PROGRAM CODE: 31-307-1



Technical Diploma



COURSES	CREDITS
<b>CHILDD-108</b> ECE: Early Language and Literacy ^.....	3
<b>CHILDD-148</b> ECE: Foundations of Early Childhood Education ^ .....	3
<b>CHILDD-151</b> ECE: Infant and Toddler Development.....	3
<b>CHILDD-167</b> ECE: Health, Safety and Nutrition ^.....	3
<b>CHILDD-195</b> ECE: Family and Community Relationships.....	3
<b>CHILDD-160</b> ECE: Field Experience 1 ^ .....	3
<b>CHILDD-179</b> ECE: Child Development ^.....	3
<b>CHILDD-188</b> ECE: Guiding Child Behavior ^.....	3
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	

CREDITS  
Total credits needed to complete this diploma **27**

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent. Documentation of compliance with Wisconsin’s Caregiver Law; proper immunizations and good health as evidenced by a medical examination; practicum placement is contingent upon results of criminal background check.

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

**Bilingual (Spanish) mode is offered at the West Allis Campus**

Child development, nutrition, creative activities and practical experience with young children are emphasized. Graduates work in child care centers, as well as serve as family child care providers.

### Career Outlook

Trends indicate a steady growth in the child care field.

### Program Learning Outcomes

- Relate knowledge of child development to practice.
- Create relationships with children, family and the community.
- Apply observation, documentation and assessment strategies.
- Implement developmentally appropriate teaching and learning experiences.
- Demonstrate professional practice.
- Follow health, safety and nutrition practices.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

‡ Prerequisite required.

^ Counts toward earning the Preschool certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Cosmetology

PROGRAM CODE: 31-502-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Use your talents to work in the cosmetology profession. This program, which is in compliance with the Wisconsin Department of Safety and Professional Services, can be completed in one year to 18 months, including attendance in summer. Graduates are eligible to take the state board licensing examination.

## Career Outlook

Employment prospects for cosmetologists are excellent. Typical job titles are cosmetologist, hair and scalp specialist, stylist, colorist, manicurist, and makeup artist.

## Program Learning Outcomes

- Perform shampoo, haircut and style services.
- Perform skin care services.
- Perform chemical services.
- Perform nail services.
- Develop business practices for industry success.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
BARCOS-300 Shampoo and Scalp Treatments .....	2
COSMET-302 Intro to Haircutting ‡ .....	2
COSMET-310 Hair Tinting ‡ .....	2
COSMET-314 Intro to Hairstyling .....	2
COSMET-306 Intro to Esthetics ‡ .....	2
COSMET-301 Intermediate Haircutting ‡ .....	2
COSMET-309 Chemical Relaxing ‡ .....	2
COSMET-304 Permanent Wave .....	2
COSMET-317 Barber/Cosmetology Theory ‡ .....	1
BARCOS-319 Natural Hair Care and Braiding .....	1
COSMET-320 Intro to Guest Services ‡ .....	1
MATH-304 Math Principles 1 .....	1
COSMET-305 Advanced Haircutting ‡ .....	2
COSMET-312 Advanced Color .....	1
COSMET-308 Nail Services ‡ .....	2
COSMET-307 Advanced Esthetics ‡ .....	1
COSMET-315 Intermediate Hairstyling ‡ .....	2
COSMET-323 Intermediate Guest Services ‡ .....	1
COSMET-303 Master Haircutting ‡ .....	2
COSMET-313 Hair Color Correction ‡ .....	1
COSMET-321 Hair Extensions ‡ .....	1
BARCOS-324 Business Skills for Barber/Cosmetologist .....	1
COSMET-329 Basic Artificial Nail Concepts ‡ .....	1
COSMET-326 Advanced Guest Services ‡ .....	1
ENG-340 Workplace Communication .....	2
(or) ENG-195 Written Communication ‡	
BARCOS-330 Business Management Skills for Barbers/Cosmetologists ‡ .....	2
COSMET-316 Advanced Style ‡ .....	1
COSMET-327 Master Guest Services ‡ .....	1
COSMET-328 Externship ‡ .....	1
COSMET-335 State Board Review ‡ .....	3

## CREDITS

Total credits needed to complete this diploma

**46**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Note: In addition to tuition and textbooks, students must purchase a tool/equipment kit.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is in compliance with:

State of Wisconsin Department of Safety and Professional Services  
4822 Madison Yards Way

Madison, WI 53705; 608-266-2112

<https://dsps.wi.gov/Pages/Professions/Cosmetologist/Default.aspx>.

# Criminal Justice Studies

PROGRAM CODE: 10-504-5



Associate Degree



**Location:** Downtown Milwaukee Campus, Oak Creek Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent, and age 17 or older

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

This program prepares you for employment in law enforcement at the local, state and federal levels, as well as in the field of private security. Successful completion of this program may qualify you to enroll in basic recruit training that leads to certification in Wisconsin.

## Career Outlook

Currently trained security professionals are in demand.

## Program Learning Outcomes

- Illustrate the interrelationships of the three core components of the criminal justice system.
- Analyze situational responses.
- Apply communication skills as a criminal justice professional.
- Conduct investigations.
- Examine the professional code of ethics for a criminal justice practitioner.
- Explore personal wellness strategies for the criminal justice professions.
- Explain the role of criminal justice professionals in working with diverse populations.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
<b>CJS-161</b> Ethics in Law Enforcement .....	3
<b>CJS-900</b> Introduction to Criminal Justice .....	3
<b>CJS-901</b> Constitutional Law.....	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>MATH-107</b> College Mathematics ‡..... (or) Any 200-level MATH course	3
<b>CJS-902</b> Criminal Law ‡ .....	3
<b>CJS-907</b> Community Policing Strategies.....	3
<b>CJS-909</b> Introduction to Corrections.....	3
<b>ECON-195</b> Economics..... (or) Any 200-level ECON course	3
<b>CJS-160</b> Contemporary Legal Issues .....	3
<b>CJS-162</b> Sensitive Crimes.....	3
<b>CJS-906</b> Criminal Investigation Theory ‡ .....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI course	
<b>ELECTIVES</b> (Three credits).....	3
<b>CJS-903</b> Professional Communications ‡ .....	3
<b>CJS-904</b> Juvenile Law ‡ .....	3
<b>CJS-905</b> Report Writing ‡ .....	3
<b>SOCSCI-172</b> Introduction to Diversity Studies..... (or) Any 200-level SOCSCI course	3

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is approved by the Wisconsin Department of Justice Training and Standards Bureau,

P.O. Box 7857, Madison, WI 53707-7857; 608-266-1221;

[www.doj.state.wi.us/dles/training-and-standards-bureau](http://www.doj.state.wi.us/dles/training-and-standards-bureau).



# Early Childhood Education

PROGRAM CODE: 10-307-1



Associate Degree



**Location:** Downtown Milwaukee Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent. Documentation of compliance with Wisconsin's Caregiver Law; proper immunizations and good health as evidenced by a medical examination; practicum placement is contingent upon results of criminal background check.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

### Bilingual (Spanish) mode offered at West Allis Campus

Pursue a career in child care or at exceptional education settings for young children and have a positive impact on a child's life. Program requirements include the completion of four practicum experiences. All courses are offered in English; a bilingual mode is offered at the West Allis Campus.

## Career Outlook

Opportunities exist in child care centers, family child care, or working with exceptional-needs children.

## Program Learning Outcomes

- Apply child development theory to practice.
- Cultivate relationships with children, family and the community.
- Assess child growth and development.
- Use effective, research-based practices in teaching and learning.
- Demonstrate professionalism.
- Integrate health, safety and nutrition practices.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>CHILDD-148</b> ECE: Foundations of Early Childhood Education ^	3
<b>CHILDD-151</b> ECE: Infant and Toddler Development ^	3
<b>CHILDD-167</b> ECE: Health, Safety and Nutrition ^	3
<b>CHILDD-160</b> ECE: Field Experience 1 ^	3
<b>ENG-195</b> Written Communication ‡ ^ (or) ENG-201 English 1 ‡ (or) Any 200-level ENG or SPEECH course	3
<b>CHILDD-108</b> ECE: Early Language and Literacy ^	3
<b>CHILDD-170</b> ECE: Field Experience 2 ‡	3
<b>CHILDD-179</b> ECE: Child Development ^	3
<b>CHILDD-195</b> ECE: Family and Community Relationships ^	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course	3
<b>CHILDD-110</b> ECE: Social Studies, Art and Music	3
<b>CHILDD-190</b> ECE: Field Experience 3 ‡	3
<b>CHILDD-188</b> ECE: Guiding Child Behavior ^	3
<b>GEOSCI-112</b> Principles of Sustainability (or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
<b>PSYCH-188</b> Developmental Psychology (or) PSYCH-238 Lifespan Psychology (or) Any 200-level PSYCH course	3
<b>CHILDD-112</b> ECE: STEM	3
<b>CHILDD-187</b> ECE: Children With Differing Abilities	3
<b>CHILDD-210</b> ECE: Field Experience 4 ‡	3
<b>ELECTIVES</b> (Three credits)	3
<b>SOCSCI-172</b> Introduction to Diversity Studies (or) SOCSCI-217 Valuing Diversity (or) Any 200-level SOCSCI course	3

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

^ Counts toward earning the Child Care Services technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is accredited by:  
National Association for the Education of Young Children (NAEYC)  
1401 H Street NW, Suite 600  
Washington, DC 20005; 800-424-2460;  
[naeyc.org/accreditation](https://naeyc.org/accreditation).

# Emergency Medical Technician

PROGRAM CODE: 30-531-3



Technical Diploma



**COURSE**

EMS-192 EMT..... 5

**CREDITS**

**CREDITS**

Total credits needed to complete this diploma

**5**

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Mequon Campus, Oak Creek Campus

**Start Dates:** August, January and June

**Admission Requirements:** Must be at least 18 years old when applying for the state EMT-Basic license, plus background check. Must be TCTP eligible.

**Financial Aid Eligible:** No

### Program Description

Prepare to enter the emergency services field, which involves working with other healthcare professionals to deliver critical, prehospital emergency medical care. This program also is designed to enhance existing skills of individuals working in the field. Completing the program with a grade of C or higher prepares you to take the National Registry Examination, which is required for certification and licensure in Wisconsin.

### Career Outlook

Employment opportunities exist in both the private and public sectors.

### Program Learning Outcomes

- Meet state competencies for EMT certification.
- Perform EMT operations.
- Assess patient(s).
- Treat patient(s).



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

# Emergency Medical Technician – Advanced

PROGRAM CODE: 30-531-6



Technical Diploma



## COURSES

EMS-311 AEMT - Advanced Emergency Technician ‡..... 4

## CREDITS

### CREDITS

Total credits needed to complete this diploma

# 4

180 hours total

Clinical hours consist of time in hospital settings or with sponsoring fire department/ambulance providers that use approved preceptors to oversee.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title: Advanced EMT.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Mequon Campus, Oak Creek Campus

**Start Dates:** TBD

**Admission Requirements:** Age 18 or older; State of Wisconsin EMT license (current); CPR certification issued by a WI DHS EMS approved provider (current). Students must meet Wisconsin DHS—EMS Chapter 110.06 initial training requirements and eligibility criteria; and Wisconsin DHS Caregiver Background Check requirements. To complete the course, students must obtain a Wisconsin DHS—EMS Training Center Training Permit. After students are admitted to the program, information will be provided regarding the Wisconsin DHS Caregiver Background Check, Training Center Training Permit, immunizations including COVID vaccination and TB testing, and medical exam requirements. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** No

## Program Description

The Emergency Medical Technician – Advanced curriculum builds upon EMT knowledge, skills, and competencies. Students learn advanced emergency medical skills, competencies, procedures, and medications within the AEMT scope of practice including IV access, fluid therapy, and medication administration techniques. AEMT's perform emergent basic life support, and limited advanced life support care in emergency and healthcare settings. Students completing the program with a grade of C or higher are eligible for the National Registry of EMT's certification examination which is required to obtain a Wisconsin AEMT license.

## Career Outlook

Employment opportunities exist within public, private, municipal and governmental EMS agencies, healthcare systems, private industry and security companies.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

## Program Learning Outcomes

- Perform AEMT Operations.
- Assess patient(s).
- Treat patient(s).

# Emergency Medical Technician – Paramedic

PROGRAM CODE: 31-531-1



Technical Diploma

**Location:** Oak Creek Campus**Start Dates:** August and January

**Admission Requirements:** Age 18 or older; State of Wisconsin Emergency Medical Technician or Advanced EMT license (current); CPR certification issued by a WI DHS EMS approved provider (current). Students must meet Wisconsin DHS—EMS Chapter 110.06 initial training requirements and eligibility criteria; and Wisconsin DHS Caregiver Background Check requirements. To complete the course, students must obtain a Wisconsin DHS—EMS Training Center Training Permit. After students are admitted to the program, information will be provided regarding the Wisconsin DHS Caregiver Background Check, Training Center Training Permit, immunizations including COVID vaccination and TB testing, and medical exam requirements. This program admits students through a waiting list process. See program webpage for details.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

Become an integral member of an advanced emergency medical team, providing medical care in emergency settings. Students learn advanced principles of pathophysiology, pharmacology, medical conditions, traumatic injuries, and emergency medical interventions. Students completing the program with a grade of C or higher are eligible for the National Registry of EMT's certification examination which is required to obtain a Wisconsin Paramedic license.

## Career Outlook

Employers include private ambulance services, hospitals, fire departments, industrial firms and security companies.

**Complete Program Details****QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

## COURSES

COURSES	CREDITS
EMS-911 EMS Fundamentals ‡	2
EMS-912 Paramedic Medical Principles ‡	4
EMS-913 Advanced Patient Assessment Principles ‡	3
EMS-914 Advanced Prehospital Pharmacology ‡	3
EMS-915 Paramedic Respiratory Management ‡	2
EMS-916 Paramedic Cardiology ‡	4
EMS-917 Paramedic Clinical/Field 1 ‡	3
EMS-918 Advanced Emergency Resuscitation ‡	1
EMS-919 Paramedic Medical Emergencies ‡	4
EMS-920 Paramedic Trauma ‡	3
EMS-921 Special Patient Populations ‡	3
EMS-922 EMS Operations ‡	1
EMS-923 Paramedic Capstone Assessment ‡	1
EMS-924 Paramedic Clinical/Field 2 ‡	4
SOCSCI-172 Introduction to Diversity Studies	3
(or) Any 200-level SOCSCI course	

## CREDITS

Total credits needed to complete this diploma

**41**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is accredited by:

Commission on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)  
8301 Lakeview Parkway, Suite 111-312  
Rowlett, TX 75088; 214-703-8445; [coaemsp.org](https://coaemsp.org).

## Program Learning Outcomes

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state and national competencies listed for paramedic certification(s).



# Environmental Health and Water Quality Technology

PROGRAM CODE: 10-506-1



Associate Degree



**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One semester of high school algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This program promotes environmental protection, improvement and sustainability, with a focus on protecting our water, food and the environment. Hands-on coursework includes principles and techniques used to assess water, food and the environment to meet applicable regulations and to implement needed corrective measures. Students use field projects and internships to further develop the skills and abilities necessary for careers in these fields. Graduates will possess a solid foundation for a wide range of environmental and public health career opportunities.

## Career Outlook

There is a steady need for essential workers, technicians and specialists in water and air quality, food safety, field monitoring and other related environmental careers.

## Program Learning Outcomes

- Evaluate environmental health hazards (air, food, water, soil, etc.).
- Conduct both field and lab environmental sampling/monitoring according to regulatory requirements and guidelines.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
ENG-195 Written Communication ‡ ^ ..... (or) ENG-201 English 1 ‡	3
ENVHEL-101 Introduction to Environmental Health/Water Quality ^ ....	3
ENVHEL-102 Environmental Biology .....	4
ENVHEL-109 Applied Environmental Chemistry ^ .....	4
MATH-107 College Mathematics ‡ ^ ..... (or) Any 200-level MATH course	3
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG	3
ENVHEL-142 Principles of Water Resources ^.....	3
ENVHEL-145 Water/Wastewater Operations – Municipal.....	3
ENVHEL-173 Environmental Bacteriology.....	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
ENVHEL-104 Industrial Hygiene Technology ‡.....	4
ENVHEL-111 Applied Water Chemistry and Analysis ‡.....	4
ENVHEL-115 Air Quality ‡ .....	4
ENVHEL-147 Water/Wastewater Operations – Industrial ‡ .....	3
ENVHEL-105 Fundamentals of Hazardous Materials Control ‡ .....	4
ENVHEL-119 Food and Dairy Safety ‡ .....	3
ENVHEL-127 Environmental Field Projects ‡ .....	3
ENVHEL-128 Environmental Health Internship ‡.....	1
ENVHEL-143 Environmental Management and Communication Skills ‡ .....	3

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

^ Counts toward earning the Water Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Fire Protection Technician

PROGRAM CODE: 10-503-2



Associate Degree



**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent, age 17 or older, background check and medical exam/immunizations.

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This program prepares you for employment in the fire service and for fire-related duties within private industry. The program also instructs current firefighters and officers on changes within the fire service. Students will have the opportunity to obtain three Wisconsin fire certifications.

## Career Outlook

As fire technology becomes more complex, the responsibilities and challenges a firefighter assumes are increasingly demanding. Therefore, well-trained and educated firefighters are sought by public and private entities.

## Program Learning Outcomes

- Model Fire Protection Technician (National Firefighter Code of Ethics) professional code of ethics.
- Perform fire prevention activities.
- Participate in incident management at an emergency.
- Model firefighter and EMS standards.
- Communicate clearly and effectively.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

## COURSES

	<b>CREDITS</b>
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>FIRE-143</b> Building Construction for Fire Protection .....	3
<b>FIRE-191</b> Principles of Emergency Services.....	2
<b>FIRE-192</b> Principles of Emergency Services Safety and Survival....	3
<b>FIRE-193</b> Fire Protection Systems.....	3
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>FIRE-142</b> Firefighting Principles.....	4
<b>FIRE-153</b> Hazmat Awareness and Operations .....	1
<b>FIRE-156</b> Strategies, Tactics and Incident Management ‡ .....	3
<b>EMS-192</b> EMT ^ .....	5
<b>FIRE-114</b> Employability Skills ‡.....	3
<b>FIRE-144</b> Advanced Firefighting Principles ‡.....	2
<b>FIRE-194</b> Fire Protection Hydraulics ‡.....	3
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) SOCSCI-217 Valuing Diversity	
<b>FIRE-151</b> Fire Prevention ‡ .....	4
<b>FIRE-154</b> Hazmat Chemistry ‡ .....	2
<b>FIRE-157</b> Fire Investigation ‡ .....	3
<b>FIRE-195</b> Fire Behavior and Combustion.....	3
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

^ Counts toward earning the Emergency Medical Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Funeral Service

PROGRAM CODE: 10-528-1



Associate Degree



**Location:** West Allis Campus, in-person and online

**Start Date:** August

**Admission Requirement:** This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements. A minimum of 24 college credits in areas specified by the state examining board are required for admission into this program.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

This program prepares you for a career as a licensed funeral director and embalmer in a profession that demands compassion, dedication and creativity.

## American Board of Funeral Service Education Program Learning Outcomes

- Explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
- Identify standards of ethical conduct in funeral service practice.
- Interpret how federal, state and local laws apply to funeral service in order to ensure compliance.
- Apply principles of public health and safety in the handling and preparation of human remains.
- Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
- Demonstrate skills required for conducting arrangement conferences, visitations, services and ceremonies.
- Describe the requirements and procedures for burial, cremation and other accepted forms of final disposition of human remains.
- Describe methods to address the grief-related needs of the bereaved.
- Explain skills associated with managing a funeral establishment.
- Demonstrate verbal and written communication skills and research skills needed for funeral service practice.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡	4
<b>ENG-195</b> Written Communication ‡ (or) ENG-201 English 1 ‡	3
<b>FUNERL-106</b> Thanatochemistry (or) Any 100-level or 200-level CHEM course	3
<b>PSYCH-199</b> Psychology of Human Relations (or) Any 200-level PSYCH course	3
<b>SOCSCI-197</b> Contemporary American Society (or) SOCSCI-210 Death and Dying or Any 200-level SOCSCI course	3
<b>ACCTG-102</b> Basic Office Accounting (or) ACCTG-110 Financial Accounting or ACCTG-111 Accounting 1	3
<b>BADM-165</b> Legal Environment of Business	3
<b>BIOSCI-197</b> Microbiology ‡	4
<b>ENG-196</b> Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course except ENG-200 and ENG-201	3
<b>FUNERL-104</b> Funeral Service Field Experience I ‡	2
<b>FUNERL-110</b> Introduction to Funeral Service ‡	2
<b>FUNERL-112</b> Laws, Rules and Regulations of Funeral Service ‡	3
<b>FUNERL-114</b> Pathology of Funeral Service ‡	2
<b>FUNERL-116</b> Funeral Service Practices ‡	4
<b>FUNERL-121</b> National Board Exam Prep I ‡	1
<b>FUNERL-134</b> Embalming Theory ‡	3
<b>FUNERL-135</b> Embalming Lab 1 ‡	1
<b>FUNERL-105</b> Funeral Service Field Experience II ‡	2
<b>FUNERL-118</b> Funeral Service Management ‡	3
<b>FUNERL-119</b> Embalming Lab 2 ‡	1
<b>FUNERL-122</b> National Board Exam Prep II ‡	1
<b>FUNERL-123</b> Restorative Art ‡	3
<b>FUNERL-124</b> Restorative Art Lab ‡	1
<b>FUNERL-136</b> Funeral Service Science ‡	2
<b>FUNERL-137</b> Funeral Service Management Lab ‡	1
<b>FUNERL-153</b> Psychology of Funeral Service ‡	3

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

The Funeral Service program at MATC is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097 (816) 233-3747. Web: [www.abfse.org](http://www.abfse.org)

National Board Passage rates for this program are available on the Funeral Service program webpage. National Board Examination pass rates, graduation rates and employment rates for this and other ABFSE-accredited programs are available at [www.abfse.org](http://www.abfse.org) in the Directory of Accredited Programs.

The American Board of Funeral Service Education - Committee on Accreditation has reaccredited this program for a period of seven years (through October 2028).



# Human Service Associate

PROGRAM CODE: 10-520-3



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent, compliance with Wisconsin’s Caregiver Law, able to pass caregiver background check

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

Real-world experience will be part of your studies as you prepare for employment as a human services worker. Students can pursue special-interest areas such as working with youths, the elderly or people with addictions.

## Career Outlook

Human service associates find careers with a range of agencies and programs that help people. Graduates work in community outreach programs, social agencies, counseling centers, educational institutions or correctional facilities.

## Program Learning Outcomes

- Model a commitment to cultural competence.
- Uphold the Ethical Standards and Values for Human Service Professionals.
- Demonstrate professionalism.
- Utilize community resources.
- Apply human services interventions and best practices.
- Cultivate professional relationships.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>SUDC-109</b> Drug Use and Abuse.....	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>HUMSVC-101</b> Introduction to Human Services ‡.....	3
<b>HUMSVC-144</b> Ethics in the Human Service Professions ‡.....	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>GEOSCI-112</b> Principles of Sustainability..... (or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
<b>HUMSVC-102</b> Interviewing Skills ‡.....	3
<b>HUMSVC-103</b> Group Work Skills ‡.....	3
<b>HUMSVC-113</b> Documentation and Record Keeping ‡.....	3
<b>HUMSVC-118</b> Introduction to Gerontology.....	3
<b>SOCSCI-197</b> Contemporary American Society..... (or) SOCSCI-203 Introduction to Sociology	3
<b>ECON-195</b> Economics..... (or) Any 200-level ECON course	3
<b>HUMSVC-104</b> Field Preparation ‡.....	1
<b>HUMSVC-115</b> Methods of Social Casework ‡.....	3
<b>HUMSVC-127</b> Disabilities and the Helping Profession.....	3
<b>HUMSVC-142</b> Multicultural Competence in the Human Service Profession.....	3
<b>ELECTIVES</b> (Three credits).....	3
<b>HUMSVC-106</b> Advanced Field Experience ‡.....	4
<b>HUMSVC-107</b> Field Experience Seminar ‡.....	2
<b>HUMSVC-121</b> Family Issues and Interventions ‡.....	3
<b>PSYCH-188</b> Developmental Psychology..... (or) PSYCH-238 Lifespan Psychology	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) PSYCH-231 Introductory Psychology	3

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



# Legal Studies/Paralegal

PROGRAM CODE: 10-110-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August, January and June

**Admission Requirement:** High school diploma or equivalent. Transfer of legal specialty coursework credit (PLEGAL designated courses) is accepted, subject to review by the Program Coordinator for course compatibility, only from ABA approved paralegal programs or from accredited law schools. Transfer is limited to a maximum of 15 credits.

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

With coursework focused on the practical aspects of law, this program provides a broad background and prepares students to work as a paralegal in the legal community, in government, or in business and industry. At least 9 credits of legal specialty (PLEGAL) courses must be taken through synchronous instruction.

## Career Outlook

Although this is a growing profession, competition in the job market is keen. Paralegals are required to work under the supervision of an attorney to avoid the unauthorized practice of law. Paralegals may not provide legal services directly to the public, except as permitted by law.

## Program Learning Outcomes

- Apply ethical principles in a legal environment.
- Process legal documents.
- Perform legal research.
- Synthesize various sources into a supportable legal conclusion.
- Demonstrate professionalism as a member of a legal team.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>BADM-106</b> MS Office for Business Applications.....	3
<b>ECON-195</b> Economics..... (or) Any 200-level ECON course	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>OFTECH-103</b> Keyboard and Keypad.....	1
<b>PLEGAL-101</b> Introduction to Paralegalism.....	3
<b>ACCTG-102</b> Basic Office Accounting.....	3
<b>BADM-165</b> Legal Environment of Business.....	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>PLEGAL-103</b> Legal Research ‡.....	3
<b>PLEGAL-123</b> Corporate Practice Systems ‡.....	3
<b>PLEGAL-140</b> Legal Interviewing/Investigation ‡.....	3
<b>MATH-123</b> Math With Business Applications ‡..... (or) Any 200-level MATH course	3
<b>PLEGAL-105</b> Civil Procedure ‡.....	3
<b>PLEGAL-107</b> Legal Writing ‡.....	3
<b>PLEGAL-114</b> Trusts and Estates – Probate Systems ‡.....	3
<b>PLEGAL-121</b> Domestic Relations and Divorce Practice Systems ‡.....	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
<b>GEOSCI-112</b> Principles of Sustainability..... (or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
<b>PLEGAL-111</b> Litigation Practice Systems ‡.....	3
<b>PLEGAL-116</b> Real Estate Law and Practice ‡.....	3
<b>PLEGAL-118</b> Criminal Practice ‡.....	3
<b>SOCSCI-197</b> Contemporary American Society..... (or) Any 200-level SOCSCI course	3

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

It is recommended that PLEGAL-103 be taken before PLEGAL-107, and that PLEGAL-105 be taken before PLEGAL-111.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is approved by the American Bar Association, 321 North Clark Street, Chicago, IL 60654; 800-285-2221; [americanbar.org/groups/paralegals/](http://americanbar.org/groups/paralegals/).

# Nail Technician

PROGRAM CODE: 30-502-4



Technical Diploma



COURSES		CREDITS
<b>NAILS-340</b>	Manicuring Theory .....	4
<b>NAILS-342</b>	Introduction: Manicuring Practicum ‡.....	4
<b>NAILS-343</b>	Advanced: Manicuring Practicum ‡ .....	4

### CREDITS

Total credits needed to complete this diploma

# 12

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Students must complete NAILS-340, NAILS-342 and NAILS-343 in conjunction.

NAILS-342 kit, textbooks and supplemental supplies must be purchased at the start of the quarter.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is in compliance with:  
 State of Wisconsin Department of Safety and Professional Services  
 4822 Madison Yards Way  
 Madison, WI 53705; 608-266-2112;  
<https://dsps.wi.gov/Pages/Professions/Manicurist/Default.aspx>.

**Location:** Downtown Milwaukee Campus, Mequon Campus

**Start Dates:** August, January and June

**Admission Requirements:** High school diploma or equivalent, or is at least 18 years old, and meets eligibility criteria; is participating in a program approved by the Examining Board. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](https://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** No

### Program Description

Learn the skills and knowledge needed to qualify to take the state manicurist license examination. You will develop professional skills in a salonlike setting. Instruction includes nail and skin disorders, manicuring and pedicuring, safety and sanitation, anatomy and physiology, applicable laws, and business and record management.

### Career Outlook

Increases in nail care services in the last decade have led to solid, steady growth for this field.

### Program Learning Outcomes

- Perform manicuring and pedicuring services.
- Perform nail enhancements.
- Develop business practices for industry success.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

# Paramedic Technician

PROGRAM CODE: 10-531-1



Associate Degree



**Location:** Oak Creek Campus

**Start Dates:** August, January and June

**Admission Requirements:** Age 18 or older; state of Wisconsin Emergency Medical Technician or Advanced EMT license (current); CPR certification issued by a WI DHS EMS approved provider (current). Students must meet Wisconsin DHS—EMS Chapter 110.06 initial training requirements and eligibility criteria; and Wisconsin DHS Caregiver Background Check requirements. To complete the course, students must obtain a Wisconsin DHS—EMS Training Center Training Permit. After students are admitted to the program, information will be provided regarding the Wisconsin DHS Caregiver Background Check, Training Center Training Permit, immunizations including COVID vaccination and TB testing, and medical exam requirements. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Paramedics provide advanced-level emergency and nonemergency medical support, primarily in prehospital settings and emergency departments. Learn strategies to assess and perform safe, appropriate care in both urgent and nonemergency situations.

## Career Outlook

Employment of emergency medical technicians and paramedics has been projected to increase 25% nationally from 2010 to 2023. The need for EMTs and paramedics in rural areas and metropolitan areas is expected to increase.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ ..... 4 (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
<b>ELECTIVES</b> (Three credits).....	3
<b>EMS-911</b> EMS Fundamentals ‡ ^ .....	2
<b>EMS-912</b> Paramedic Medical Principles ‡ ^ .....	4
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡	3
<b>EMS-913</b> Advanced Patient Assessment Principles ‡ ^ .....	3
<b>EMS-914</b> Advanced Prehospital Pharmacology ‡ ^ .....	3
<b>MATH-134</b> Mathematical Reasoning ..... 3 (or) MATH-135 Qualitative Reasoning (or) Any 200-level MATH course	3
<b>PSYCH-199</b> Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course	3
<b>EMS-915</b> Paramedic Respiratory Management ‡ ^ .....	2
<b>EMS-916</b> Paramedic Cardiology ‡ ^ .....	4
<b>EMS-917</b> Paramedic Clinical/Field 1 ‡ ^ .....	3
<b>EMS-918</b> Advanced Emergency Resuscitation ‡ ^ .....	1
<b>EMS-919</b> Paramedic Medical Emergencies ‡ ^ .....	4
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>SOCSCI-172</b> Introduction to Diversity Studies ^ .....	3
(or) Any 200-level SOCSCI course	
<b>EMS-920</b> Paramedic Trauma ‡ ^ .....	3
<b>EMS-921</b> Special Patient Populations ‡ ^ .....	3
<b>EMS-922</b> EMS Operations ‡ ^ .....	1
<b>EMS-923</b> Paramedic Capstone Assessment ‡ ^ .....	1
<b>EMS-924</b> Paramedic Clinical/Field 2 ‡ ^ .....	4

## CREDITS

Total credits needed to complete this degree

**60**

## Program Learning Outcomes

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.

‡ Prerequisite required.

^ Counts toward earning the EMT – Paramedic technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088; 214-703-8445; [coaemsp.org](http://coaemsp.org).

# Post-Baccalaureate Legal Studies/Paralegal

PROGRAM CODE: 30-110-2



Technical Diploma



COURSES	CREDITS
ENG-195* Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
PLEGAL-101 Introduction to Paralegalism .....	3
PLEGAL-103 Legal Research ‡ .....	3
PLEGAL-105 Civil Procedure ‡ .....	3
PLEGAL-107 Legal Writing ‡ .....	3
PLEGAL-111 Litigation Practice Systems ‡ .....	3
PLEGAL-114 Trusts and Estates – Probate Systems ‡ .....	3

### CREDITS

Total credits needed to complete this diploma

# 21

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August, January and June

**Admission Requirements:** Bachelor's degree with at least 18 credits in Liberal Arts courses required; submit official college transcript to Downtown Milwaukee Campus Admissions Office. Transfer of legal specialty coursework credit (PLEGAL designated courses) is accepted, subject to review by Program Coordinator for course compatibility, only from ABA approved paralegal programs or accredited law schools. Transfer is limited to maximum of 9 credits.

**Financial Aid Eligible:** No

### Program Description

This program is designed for students who already have a bachelor's degree with at least 18-credits in Liberal Arts courses. You will gain the foundation for a paralegal career in a law office, government agency, private organization or corporation. At least 9 credits of legal specialty (PLEGAL) legal courses must be taken through synchronous instruction.

### Career Outlook

Typical job duties include conducting client interviews, obtaining case information, performing legal research, preparing and filing legal documents, and providing general assistance to attorneys. Paralegals are required to work under the supervision of an attorney and may not provide legal services directly to the public, except as permitted by law.

### Program Learning Outcomes

- Apply ethical principles in a legal environment.
- Process legal documents.
- Perform legal research.
- Demonstrate professionalism as a member of a legal team.
- Synthesize various sources into a supportable legal conclusion.



### Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

‡ Prerequisite required, however, students admitted to the technical diploma program can register for paralegal specialty (PLEGAL) courses. Diploma students must request Prerequisite Waivers for the courses they wish to take via their Self-Service account.

Program curriculum requirements are subject to change.

\* Students admitted to the technical diploma program should request that undergraduate credit be awarded for ENG-195.

It is recommended that PLEGAL-103 be taken prior to PLEGAL-107, and that PLEGAL-105 be taken prior to PLEGAL-111.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is approved by the American Bar Association

321 North Clark Street  
Chicago, IL 60654; 800-285-2221  
[americanbar.org/groups/paralegals/](http://americanbar.org/groups/paralegals/).



# Preschool

PROGRAM CODE: 61-307-1



Certificate



## COURSES

	<b>CREDITS</b>
<b>CHILDD-148</b> ECE: Foundations of Early Childhood Education .....	<b>3</b>
<b>CHILDD-167</b> ECE: Health, Safety and Nutrition .....	<b>3</b>
<b>CHILDD-188</b> ECE: Guiding Child Behavior .....	<b>3</b>
<b>CHILDD-108</b> ECE: Early Language and Literacy .....	<b>3</b>
<b>CHILDD-160</b> ECE: Field Experience 1 .....	<b>3</b>
<b>CHILDD-179</b> ECE: Child Development .....	<b>3</b>

## CREDITS

Total credits needed to complete this certificate

# 18

**Location:** Downtown Milwaukee Campus, Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent. Documentation of compliance with Wisconsin's Caregiver Law. Proper immunizations and good health as evidenced by a medical examination. Practicum placement contingent upon results of criminal background check.

**Financial Aid Eligible:** No

## Program Description

### Bilingual (Spanish) mode is offered at the West Allis Campus

Take this step to further develop your options in a child care career. After completing this certificate's coursework and an additional required course (CHILDD-175), you become eligible for The Registry Preschool credential.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



## Complete Program Details

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

# Water Technician

PROGRAM CODE: 61-506-1



Certificate



COURSES		CREDITS
<b>ENVHEL-101</b>	Introduction to Environmental Health/Water Quality .....	3
<b>ENVHEL-109</b>	Applied Environmental Chemistry .....	4
<b>ENG-195</b>	Written Communication ‡ .....	3
	(or) ENG-201 English 1 ‡	
<b>ENVHEL-142</b>	Principles of Water Resources .....	3
<b>ENVHEL-173</b>	Environmental Bacteriology .....	3

### CREDITS

Total credits needed to complete this certificate

# 16

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One semester of high school-level algebra

**Financial Aid Eligible:** No

### Program Description

Gain the core skills recognized by the water industry for an entry-level position by performing basic hands-on work. This certificate is a pathway designed to help you progress in attaining more technical skills.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-570-4426 or [servepathway@matc.edu](mailto:servepathway@matc.edu)

# CREATIVE ARTS, DESIGN & MEDIA

Let MATC's Creative Arts, Design & Media Pathway prepare you to showcase your creative talents in the Milwaukee area and beyond. State-of-the-art classrooms, labs and equipment will provide you with hands-on instruction from your first day on campus, so you can develop a portfolio, gain career-related experience, and join a community of artistic professionals.

## Pathway Offices

**Downtown Milwaukee Campus**, C Building, Room C204, **414-297-6004**

**Mequon Campus**, Room A108

**Oak Creek Campus**, Room A121

**West Allis Campus**, Room 103

[creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)



Animation AD  
Audio Engineer TD  
Audio Production AD  
Baking and Pastry Arts AD  
Baking Production TD  
Computer Simulation and Gaming AD  
Culinary Arts AD  
Culinary Assistant TD  
Digital Content Creation AD  
Digital Imaging TD  
Food Service Assistant TD  
Front-End Web Developer TD

Graphic Design AD  
Interior Design AD  
Music Occupations AD  
Photography AD  
Production Artist TD  
Television and Video Production AD  
TV Video Field Production Assistant TD  
TV Video Studio Production Assistant TD  
Unity Developer TD  
Web & Digital Media Design AD



**AD** Associate Degree program  
**TD** Technical Diploma program  
**C** Certificate program

# Animation

PROGRAM CODE: 10-207-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafs.gov.

## Program Description

MATC's unique facilities and the program's innovative curriculum offer a comprehensive background in animation. Students have opportunities to learn about 2D animation and 3D animation. Portfolio reviews in several courses are designed to assist you in compiling work samples to show employers.

## Career Outlook

From visualization of architectural spaces to video games to effects in movies, animation is expanding.

## Program Learning Outcomes

- Create an animated asset for a product.
- Build assets suitable for export and/or rendering to target platforms.
- Apply fundamental artistic concepts to the 3D environment.
- Implement project management skills.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
ANIM-101	Basic Drawing for Animators ..... 3
ANIM-104	Principles of Character Development ..... 3
ANIM-106	Principles of 3D Animation ..... 3
CSG-115	CSG Production ..... 3
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
ANIM-120	Environment and Set Design ‡ ..... 3 (or) ANIM-114 Storyboard Pro ‡
ANIM-125	3D Modeling ‡ ..... 3 (or) ANIM-138 Animation for Game Development ‡
ANIM-140	Timelines, Keyframes and Kinematics ‡ ..... 3
ANIM-156	Broadcast Animation ‡ ..... 3
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
ANIM-124	Animation Layout and Design ‡ ..... 3
ANIM-130	3D Simulations and Illustrations ‡ ..... 3
ANIM-145	Intermediate 3D Animation ‡ ..... 3 (or) ANIM-121 Intermediate 2D Animation ‡
CSG-147	Creative Studio Management ..... 3
MATH-107	College Mathematics ‡ ..... 3 (or) Any 200-level MATH course
ANIM-110	Digital Life Drawing ..... 3
ANIM-150	Advanced Animation ‡ ..... 2
ANIM-160	Animation Portfolio ‡ ..... 2
ANIM-165	Motion Analysis for Animation ‡ ..... 3
CSG-119	Designing Interactive Displays ‡ ..... 3
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level SOCSCI course

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Audio Engineer

PROGRAM CODE: 30-701-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Demonstration of basic computer skills in the Mac OS, and the ability to lift, bend and move equipment

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Plan now for a sound future. You will learn to work with live sound at concerts, stage and church settings; studio recordings and studio engineering; field recordings; production of beats; and audio for gaming. This program prepares you for entry-level positions in the audio engineering field.

## Career Outlook

Positions for audio engineers exist in live applications, commercial recording studios and home-recording production suites.

## Program Learning Outcomes

- Apply technical and artistic skills for entry-level employment in the audio production industry.
- Apply critical listening and post-production mastering skills to final audio mixes.
- Demonstrate the process of digitally blending multiple sources of audio using a mixing console.
- Set up and prepare audio equipment for proper sound reinforcement during performances.
- Utilize post-production mixing skills to mix studio recordings.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
<b>AUDIO-100</b> Introduction to Audio Software .....	1
<b>AUDIO-102</b> Techniques of Sound Recording ‡.....	3
<b>AUDIO-117</b> Sound Reinforcement .....	3
<b>ENG-195</b> Written Communication .....	3
(or) ENG-201 English 1 ‡	
<b>MUSIC-149</b> Music Theory 1.....	3
<b>MUSIC-189</b> Voice Lab 1 .....	1
<b>AUDIO-103</b> Recording Live Concerts ‡.....	3
<b>AUDIO-111</b> Advanced Audio Software ‡ .....	1
<b>AUDIO-116</b> Advanced Techniques of Sound Recording ‡ .....	3
<b>AUDIO-126</b> Electronics for Audio Engineers ‡ .....	2
<b>MUSIC-177</b> Piano Lab 1 .....	1

## CREDITS

Total credits needed to complete this diploma

**24**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Audio Production

PROGRAM CODE: 10-701-4



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Demonstration of basic computer skills in the Mac OS and the ability to lift, bend and move equipment

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

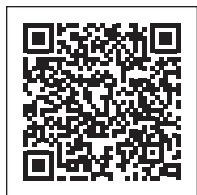
Combining creative and practical aspects of sound and music, this program prepares you to enter the audio engineering field. Coursework covers working with live and recorded sound to provide more employment options.

## Career Outlook

The explosion of social media and web use for independent artists, plus the increase in affordable digital audio workstations, present opportunities for audio engineers.

## Program Learning Outcomes

- Produce and edit audio recordings using professional software and equipment.
- Apply studio management practices and standards.
- Apply critical listening and post-production mastering skills to final audio mixes.
- Demonstrate the process of live mixing by blending multiple sources of digital audio using a mixing console.
- Set up and prepare audio equipment for proper sound reinforcement during performances.
- Post-production mixing.
- Apply principles of music fundamentals to professional sound recordings.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
AUDIO-100	Introduction to Audio Software ^ ..... 1
AUDIO-102	Techniques of Sound Recording ‡ ^ ..... 3
AUDIO-103	Recording Live Concerts ‡ ^ ..... 3
ENG-195	Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡
MUSIC-149	Music Theory 1 ..... 3
MUSIC-189	Voice Lab 1 ^ ..... 1
AUDIO-111	Advanced Audio Software ‡ ^ ..... 1
AUDIO-114	Critical Listening of Sound and Music ..... 2
AUDIO-116	Advanced Techniques of Sound Recording ‡ ^ ..... 3
AUDIO-117	Sound Reinforcement ^ ..... 3
MATH-107	College Mathematics ‡ ..... 3 (or) Any 200-level MATH course
MUSIC-177	Piano Lab 1 ^ ..... 1
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
AUDIO-118	Studio Management and Design ‡ ..... 2
AUDIO-120	Audio Production for Video Media ..... 3
AUDIO-125	Advanced MIDI Recording ‡ ..... 1
ENG-196	Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
MUSIC-101	Music Business ..... 2
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level SOCSCI or HIST course
AUDIO-126	Electronics for Audio Engineers ‡ ^ ..... 2
AUDIO-127	Mastering for Media ‡ ..... 3
AUDIO-128	Final Project – Field Work ‡ ..... 3
ELECTIVES	(Five credits) ..... 5
MKTG-118	Social Media Marketing ..... 3

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Audio Engineer technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Baking and Pastry Arts

PROGRAM CODE: 10-314-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Ability to lift up to 50 pounds and the purchase of pastry tool kit and uniform

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Learn techniques of producing artisan breads, pastries, celebration cakes, confections and showpieces. You will have the opportunity to learn firsthand how to run a successful bakery/café operation from the front and back of the house. Students completing the Baking and Pastry Arts associate degree technical coursework receive the Certified Pastry Culinarian title from the American Culinary Federation.

## Career Outlook

Employment in the food preparation sector is expected to increase throughout the United States, including a growing demand for specialty products.

## Program Learning Outcomes

- Demonstrate baking and pastry skills.
- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Analyze food service financial information.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
<b>BAKING-120</b> Basic Baking Techniques ‡ ^ .....	3
<b>BAKING-122</b> Baking Principles and Ingredient Functions ^ .....	3
<b>CULART-100</b> Introduction to Food Service/Hospitality Industry ‡ .....	1
<b>CULART-117</b> Nutrition for Culinary Arts ^ .....	1
<b>CULART-118</b> Sustainable Food Communities .....	1
<b>CULMGT-112</b> Food Service Sanitation ^ .....	2
<b>MATH-134</b> Mathematical Reasoning ^ .....	3
(or) Any 200-level MATH course	
<b>BAKING-101</b> Specialty Baking and Pastry Techniques ‡ ^ .....	3
<b>BAKING-125</b> Artisan Breads ‡ ^ .....	3
<b>BAKING-129</b> Healthy and Natural Baking ‡ ^ .....	2
<b>BAKING-130</b> Field Experience in Baking and Pastry Arts ‡ ^ .....	1
<b>CULMGT-105</b> Culinary Math and Cost Control ^ .....	3
<b>ENG-195</b> Written Communication ‡ ^ .....	3
(or) ENG-201 English 1 ‡	
<b>BAKING-108</b> Hotel and Restaurant Dessert Production ‡ .....	2
<b>BAKING-113</b> Cake Decorating, Icing and Fondant ‡ .....	3
<b>BAKING-131</b> Baking and Classical Cakes ‡ .....	2
<b>CULART-109</b> Garde Manger 1 ‡ .....	1
<b>CULART-116</b> Mise en Place/Culinary Fundamentals ‡ .....	2
<b>CULART-122</b> Stocks, Soups and Sauces ‡ .....	1
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ^ .....	3
(or) Any 200-level ENG or SPEECH course	
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI or HIST course	
<b>BAKING-107</b> Café Operations ‡ .....	5
<b>BAKING-127</b> Chocolate, Confections and Sugar Work ‡ .....	3
<b>HOTEL-133</b> Supervision in Hospitality Industry .....	3
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Baking Production technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC),

6816 Southpoint Parkway, Suite 400  
Jacksonville FL 32216; 904-824-4468  
[acfcchefs.org/accreditation](http://acfcchefs.org/accreditation).

# Baking Production

PROGRAM CODE: 31-314-2



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Ability to lift up to 50 pounds and the purchase of a pastry tool kit and uniform

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Learn to produce and prepare pies, cookies, cakes, breads and other goods in a variety of baking environments, such as in-store and independent bakeries, large commercial bakeries and restaurants.

## Career Outlook

Graduates typically find employment in retail or commercial bakeries. Employers will expect graduates to safely use equipment, to mix batters and doughs, and to skillfully decorate baked goods.

## Program Learning Outcomes

- Safe use of hand and power tools in the bakery.
- Scaling ingredients for accurate portioning.
- Mixing and handling batters and doughs.
- Applying icing to baked products.
- Preparation of fancy breads, dinner rolls, layer cakes, tortes, petit fours and cookies.
- Converting standard recipes and portion control formulas.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)

COURSES	CREDITS
<b>BAKING-120</b> Basic Baking Techniques ‡	3
<b>BAKING-122</b> Baking Principles and Ingredient Functions	3
<b>CULART-117</b> Nutrition for Culinary Arts	1
<b>CULMGT-112</b> Food Service Sanitation	2
<b>ENG-195</b> Written Communication ‡ (or) ENG-201 English 1 ‡	3
<b>MATH-134</b> Mathematical Reasoning (or) Any 200-level MATH course	3
<b>BAKING-101</b> Specialty Baking and Pastry Techniques ‡	3
<b>BAKING-125</b> Artisan Breads ‡	3
<b>BAKING-129</b> Healthy and Natural Baking ‡	2
<b>BAKING-130</b> Field Experience in Baking and Pastry Arts ‡	1
<b>CULMGT-105</b> Culinary Math and Cost Control	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course	3

## CREDITS

Total credits needed to complete this diploma

# 30

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Computer Simulation and Gaming

PROGRAM CODE: 10-153-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Demonstration of basic computer skills in OS, word processing and the internet

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Prepare for a career in animation and gaming, plus attain skills transferable to other industries such as computer programming, multimedia development and film production. Students have opportunities to focus on game design or programming.

## Career Outlook

Testers, designers and producers are in demand as the use of this technology increases rapidly. New games are continually in production, and computer simulations are used as educational and training tools in schools and businesses.

## Program Learning Outcomes

- Create an animated asset for a product.
- Build assets suitable for export and/or rendering to target platforms.
- Apply fundamental artistic concepts to the 3D environment.
- Implement project management skills.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

## COURSES

	<b>CREDITS</b>
<b>CSG-110</b> Introduction to Computer Simulation and Gaming ^ .....	3
<b>CSG-114</b> Introduction to Game Development/Programming ^..... (or) CSG-131 Introduction to Game Design	3
<b>CSG-115</b> CSG Production ^.....	3
<b>CSG-117</b> Game Logic and Problem-Solving ^ .....	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>CSG-118</b> Game Engine Scripting ‡ ^.....	3
<b>CSG-127</b> Agile Project Management.....	3
<b>CSG-128</b> Intermediate Game Development Programmer ‡ ^..... (or) CSG-133 Intermediate Game Design ‡	3
<b>CSG-129</b> CSG Architecture ‡.....	2
<b>CSG-130</b> CSG Design ‡.....	3
<b>ENG-197</b> Technical Reporting ‡..... (or) Any 200-level ENG course	3
<b>CSG-120</b> Interactive Display Production 1 ^.....	1
<b>CSG-179</b> CSG API Programming ‡ ^ .....	4
<b>CSG-181</b> CSG Collaborative Lab ‡.....	4
<b>CSG-185</b> Data Structures for Game Developers ‡ .....	3
(or) CSG-138 Advanced Game Design ‡	
<b>MATH-107</b> College Mathematics ‡ ^ .....	3
(or) Any 200-level MATH course	
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>ANIM-160</b> Animation Portfolio ‡.....	2
<b>CSG-119</b> Designing Interactive Displays ‡ ^ .....	3
<b>CSG-132</b> Artificial Intelligence ‡.....	3
<b>CSG-180</b> Multimedia Collaborative Lab ‡ .....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI course	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

^ Counts toward earning the Unity Developer technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Culinary Arts

PROGRAM CODE: 10-316-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafs.gov.

## Program Description

This program fuses the art and science of cooking with an introduction to business management. You will learn how to run a food-service operation by participating in the on-campus Cuisine restaurant, International Foods lunch service, and business and industry kitchens. Students completing the Culinary Arts associate degree technical coursework receive the Certified Culinarian title from the American Culinary Federation.

## Career Outlook

Graduates are highly employable as cooks and management trainees.

## Program Learning Outcomes

- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Demonstrate culinary skills.

This program is accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC), 6816 Southpoint Parkway, Suite 400 Jacksonville FL 32216; 904-824-4468 [acfcchefs.org/accreditation](http://acfcchefs.org/accreditation).



## Complete Program Details

**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)

COURSES	CREDITS
<b>CULART-100</b> Introduction to Food Service/Hospitality Industry ‡ ^.....	1
<b>CULART-116</b> Mise en Place/Culinary Fundamentals ‡ ^.....	2
<b>CULART-117</b> Nutrition for Culinary Arts ^ .....	1
<b>CULART-118</b> Sustainable Food Communities ^ .....	1
<b>CULMGT-112</b> Food Service Sanitation ^ .....	2
<b>MATH-134</b> Mathematical Reasoning .....	3
(or) Any 200-level MATH course	
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI or HIST course	
<b>CULART-103</b> Culinary Arts Practicum ‡.....	2
<b>CULART-107</b> Field Experience in Food Service/Hospitality ‡ .....	1
<b>CULART-122</b> Stocks, Soups and Sauces ‡ .....	1
<b>CULART-124</b> Meat Identification and Fabrications ‡.....	1
<b>CULART-126</b> Seafood/Shellfish Cookery ‡ .....	1
<b>CULART-128</b> Vegetables, Starches and Grains ‡ .....	1
<b>CULMGT-101</b> Menu Planning and Design .....	2
<b>CULMGT-105</b> Culinary Math and Cost Control.....	3
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>BAKING-135</b> Baking for Culinarians ‡ .....	3
<b>CULART-114</b> Food Advocacy ‡ .....	4
<b>CULART-134</b> American Regional Cuisine ‡.....	1
<b>CULART-135</b> European and Mediterranean Cuisine ‡.....	1
<b>CULART-136</b> Asian Cuisine ‡.....	1
<b>CULART-137</b> South and Central American Cuisine ‡ .....	1
<b>CULMGT-102</b> Food and Beverage Procurement ‡.....	2
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>CULART-105</b> Dining Room Service ‡.....	2
<b>CULART-106</b> Contemporary Restaurant Cooking ‡.....	4
<b>CULART-109</b> Garde Manger 1 ‡ .....	1
<b>CULART-111</b> Garde Manger 2 ‡ .....	1
<b>CULART-138</b> Restaurant Operations ‡.....	2
<b>HOTEL-133</b> Supervision in the Hospitality Industry.....	3
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	

## CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the Food Service Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Culinary Assistant

PROGRAM CODE: 31-316-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

You will learn basic theory and techniques of food production and service through a combination of lecture, demonstration and hands-on experience. The program is designed to prepare students for entry-level employment in the food service industry.

### Career Outlook

Graduates typically are employed as cooks and management trainees. With experience, opportunities exist for advancement to chef and/or manager.

### Program Learning Outcomes

- Apply principles of safety and sanitation in food service operations.
- Apply basic principles of nutrition.
- Demonstrate basic culinary skills.
- Assist in food service management.
- Plan a menu.
- Explore food service financial information.



### Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

### COURSES

	<b>CREDITS</b>
<b>CULART-100</b> Introduction to Food Service/Hospitality Industry ‡ ^.....	1
<b>CULART-116</b> Mise en Place/Culinary Fundamentals ‡ ^.....	2
<b>CULART-117</b> Nutrition for Culinary Arts ^ .....	1
<b>CULART-118</b> Sustainable Food Communities ^.....	1
<b>CULMGT-112</b> Food Service Sanitation ^ .....	2
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>MATH-134</b> Mathematical Reasoning .....	3
(or) Any 200-level MATH course	
<b>CULART-107</b> Field Experience in Food Service/Hospitality Industry ‡ ....	1
<b>CULART-114</b> Food Advocacy ‡.....	4
<b>CULART-103</b> Culinary Arts Practicum ‡.....	2
<b>CULART-122</b> Stocks, Soups and Sauces ‡ .....	1
<b>CULART-124</b> Meat Identification and Fabrications ‡.....	1
<b>CULART-126</b> Seafood/Shellfish Cookery ‡ .....	1
<b>CULART-128</b> Vegetables, Starches and Grains ‡ .....	1
<b>CULMGT-101</b> Menu Planning and Design .....	2
<b>CULMGT-105</b> Culinary Math and Cost Control.....	3

### CREDITS

Total credits needed to complete this diploma

# 29

‡ Prerequisite required.

^ Counts toward earning the Food Service Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Digital Content Creation

PROGRAM CODE: 10-701-3



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

To begin a career in producing on-demand visual media content, this degree prepares you to distribute high-quality video content for the internet, smartphones and other interactive technologies. You will learn how to acquire, edit and recode media for multiple delivery platforms, and gain hands-on experience at Milwaukee PBS studios.

### Career Outlook

Digital production and distribution of on-demand content is growing as businesses strive to reach consumers via new technologies.

### Program Learning Outcomes

- Apply the principles of design and storytelling to develop media products and services.
- Demonstrate proficiency in the use of media software, tools and technology.
- Manage a production from concept through completion.
- Communicate creative rationale in formal and informal settings.
- Apply ethical business practices.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
TV-101	TV/Video Studio Production Techniques ‡ ^ ..... 4
TV-181	Video in Society ‡ ^ ..... 1
DCC-150	Intro to Digital Content Creation ‡ ^ ..... 3
DCC-170	Media Design Elements ‡ ^ ..... 2
ENG-195	Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
TV-105	TV/Video Field Production Techniques ‡ ^ ..... 4
TV-112	Storytelling Via Post-Product ‡ ^ ..... 3
DCC-152	Intermediate Digital Content Techniques ‡ ^ ..... 3
DCC-158	Data Content Management ‡ ^ ..... 1
DCC-159	Streaming Content Creation ‡ ^ ..... 2
ENG-197	Technical Reporting ‡ ^ ..... 3 (or) Any 200-level ENG or SPEECH course
DCC-153	Digital Content Creation Practicum ‡ ..... 3
DCC-154	Digital Content Engagement ‡ ..... 3
TV-107	Scriptwriting for Visual Media ‡ ..... 3
TV-142	Intermediate Non-Linear Video Editing ‡ ..... 3
TV-106	Grip/Gaffing & Camera Support ‡ ..... 2
MATH-107	College Mathematics ‡ ..... 3 (or) Any 200-level MATH course
DCC-171	Digital Engineering Principles ‡ ..... 1
DCC-155	Advanced Techniques/Digital Content Creation ‡ ..... 3
TV-149	MCA CO-OP 1 ‡ ..... 3
TV-132	Advanced Non-Linear Editing ‡ ..... 3
TV-109	Techniques for Field Audio Acquisition ‡ ..... 2
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level SOCSCI course

### CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

^ Counts toward earning the TV/Video Field Production Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Digital Imaging

PROGRAM CODE: 31-203-2



Technical Diploma



COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
PHOTO-100	Introduction to Digital Photography ..... 1
PHOTO-101	Digital Fundamental Photography ..... 3
PHOTO-107	Photographic Trends..... 1
PHOTO-141	Photoshop for Photographers 1 ..... 3
MATH-123	Math With Business Applications ‡ ..... 3 (or) Any 200-level MATH course
PHOTO-108	Photographic Lighting ‡ ..... 3
PHOTO-130	Photographic Composition..... 3
PHOTO-139	Measurement Techniques ‡ ..... 3
PHOTO-142	Photoshop for Photographers 2 ‡ ..... 3

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Demonstration of basic computer skills in the Mac OS; the ability to lift, bend and move equipment; and professional DSLR or mirrorless camera with interchangeable lenses and full manual controls

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Focus on photography techniques and industry trends for composition, lighting and image manipulation as you prepare to enter the digital imaging field with the skills attained in this program.

### Career Outlook

As the industry continues to evolve, new job opportunities exist in professional-level still and video photography.

### Program Learning Outcomes

- Apply pre-planning skill in proper conceptual development, photo equipment choices and lighting design before executing the plan.
- Demonstrate proficiency in a variety of industry software tools and techniques, including graphic software, digital video and color management software.
- Demonstrate proficiency in evaluating a variety of web creation sites and developing appropriate content.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)

### CREDITS

Total credits needed to complete this diploma

**26**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Food Service Assistant

PROGRAM CODE: 30-316-1



Technical Diploma



COURSES	CREDITS
<b>CULART-100</b> Introduction to Food Service/Hospitality Industry ‡ .....	1
<b>CULART-116</b> Mise en Place/Culinary Fundamentals ‡ .....	2
<b>CULART-117</b> Nutrition for Culinary Arts.....	1
<b>CULART-118</b> Sustainable Food Communities .....	1
<b>CULMGT-112</b> Food Service Sanitation.....	2

## CREDITS

Total credits needed to complete this diploma

# 7

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Here's your recipe for learning to prepare and cook a variety of foods that require a short preparation time. This one-semester program focuses on developing skills to begin a career in the food service industry.

### Career Outlook

Graduates will have entry-level skills for taking orders, serving customers and performing a variety of food preparation duties.

### Program Learning Outcomes

- Demonstrate the ability to clean food-preparation areas, cooking surfaces and utensils according to industry standards.
- Differentiate proper handling of prepared-to-order food compared to food that is kept warm until sold.
- Assist cooks and kitchen staff with various tasks as needed.
- Cut, slice or grind meat, poultry and seafood to prepare for cooking.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)

# Front-End Web Developer

PROGRAM CODE: 31-206-1



Technical Diploma



COURSES	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
ITDEV-117 Logic and Problem-Solving	3
MKTG-165 Digital Marketing	3
WEBDEV-102 Introduction to Digital Media	3
WEBDEV-114 Web Development With HTML/CSS	3
WEBDEV-119 Web Design Overview ‡	3
WEBDEV-123 Interactive Design ‡	3
WEBDEV-124 Database Web Design With PHP and MySQL ‡	3
WEBDEV-133 Content Management Systems ‡	3
WEBDEV-134 Responsive Web Design ‡ (or) WEBDEV-132 Rich Media for the Web ‡	3
WEBDEV-140 Web Development With JavaScript and jQuery ‡	3

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** Demonstration of basic computer skills in operating systems, word processing and the internet

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

To prepare for this field's ever-changing technology, you will attain in-depth skills in web design, design tools and web development languages. Coursework includes web marketing and the designing and publishing of several websites using multiple web development languages.

## Career Outlook

Demand for web designers and web developers is growing steadily as more businesses and organizations rely on functional and flexible websites.

## Program Learning Outcomes

- Design websites or applications.
- Utilize essential data technologies.
- Develop user interfaces.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

## CREDITS

Total credits needed to complete this diploma

**33**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Graphic Design

PROGRAM CODE: 10-201-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

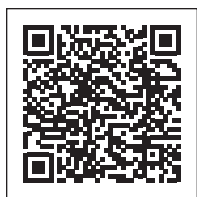
You will be introduced to the range of opportunities in this field: design of print-generated and computer-generated graphics for books, newspapers, magazines, web applications and marketing materials; and additional design applications for point-of-purchase, packaging and outdoor advertising.

## Career Outlook

Today's digital world reduces the geographic limits for finding clients. Employers include advertising agencies, corporations and nonprofit groups.

## Program Learning Outcomes

- Apply the principles of design to develop strategic marketing and communication products and services.
- Demonstrate proficiency in the use of design software, tools, and technology.
- Implement creative solutions from concept through completion using a formal process.
- Apply effective legal and ethical business practices and project management skills.
- Communicate artwork rationale in formal and informal settings.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
ENG-195	Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡
GRDS-103	Design Elements and Principles ^ ..... 3
GRDS-107	Digital Imaging: Adobe Photoshop ^ ..... 3
GRDS-115	Typographic Fundamentals ^ ..... 3
GRDS-122	Vector Graphics: Adobe Illustrator ^ ..... 3
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
GRDS-104	Researching and Concepting ‡ ^ ..... 3
GRDS-110	Layout and Publishing: InDesign ‡ ^ ..... 3
GRDS-111	Advertising Design ‡ ^ ..... 3
GRDS-117	Packaging Design ‡ ^ ..... 3
GRDS-128	Portfolio Pathway ‡ ^ ..... 1
GRDS-121	Exhibition Design ‡ ..... 3
GRDS-126	History of Design ..... 3
GRDS-129	Motion Graphic Design ‡ ..... 3
GRDS-142	Brand and Media Strategies ..... 3
MATH-134	Mathematical Reasoning ..... 3 (or) Any 200-level MATH course
GRDS-112	Graphic Design Workshop ‡ ..... 3
GRDS-113	Digital Media Preparation ‡ ..... 3
GRDS-116	Integrated Design Thinking ‡ ..... 3
GRDS-153	Portfolio Assessment ‡ ..... 3
SOCSCI-172	Introduction to Diversity Studies ..... 3 (or) Any 200-level SOCSCI or HIST course

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

^ Counts toward earning the Production Artist technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



# Interior Design

PROGRAM CODE: 10-304-1



Associate Degree



**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Demonstration of proficiency in basic computer skills or completion of BADM-106 MS Office for Business Applications.

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Interior designers use creativity, technical knowledge and aesthetics to create solutions that improve the function and quality of interior environments. Coursework includes manual and computer-aided design (CAD) drawing and commercial and residential planning.

## Career Outlook

Employment in the kitchen and bath design and remodeling industry remains strong. Continued growth is expected in corporate interiors, healthcare and facilities design.

## Program Learning Outcomes

- Integrate codes that impact the interior environment.
- Integrate industry guidelines that impact the interior environment.
- Apply interior design business practices.
- Apply design process to interior design projects.
- Design within the parameters of the built environment.
- Apply fundamentals of design.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
<b>ECON-195</b> Economics.....	3
(or) Any 200-level ECON course	
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>INDSGN-100</b> Introduction to Interior Design .....	3
<b>INDSGN-102</b> Basic Architectural Drawing .....	3
<b>INDSGN-104</b> Interior Elements of Building Construction .....	3
<b>INDSGN-106</b> Materials and Furniture Design.....	3
<b>ENG-197</b> Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>INDSGN-108</b> Residential Studio ‡.....	3
<b>INDSGN-110</b> Advanced Architectural Drawing ‡ .....	3
<b>INDSGN-113</b> Textiles: Science, Application and Design.....	3
<b>INDSGN-114</b> Color and Light ‡.....	3
<b>MATH-107</b> College Mathematics ‡.....	3
(or) Any 200-level MATH course	
<b>INDSGN-116</b> Kitchen and Bath Design ‡ .....	3
<b>INDSGN-118</b> Commercial Studio ‡.....	3
<b>INDSGN-120</b> Interior Design Internship ‡ .....	1
<b>INDSGN-122</b> Styles of Furniture and Architecture ‡ .....	3
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>ELECTIVES</b> (Three credits).....	3
<b>INDSGN-124</b> Advanced Commercial Studio ‡.....	3
<b>INDSGN-128</b> Designer/Client Relationships .....	3
<b>INDSGN-131</b> Portfolio Development and Application ‡ .....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level HIST or SOCSCI course	

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Music Occupations

PROGRAM CODE: 10-805-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

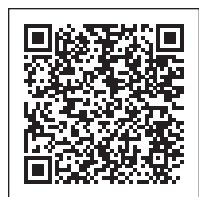
Prepare for a career in music by developing your skills as a well-rounded musician. Areas of study include theory fundamentals such as reading, analysis, composition, ear training and more. Students have opportunities to focus on performance or composition courses.

## Career Outlook

In preparation for a career in music, the program is designed to develop your skills as a well-rounded musician while focusing on your primary instrument.

## Program Learning Outcomes

- Create an arrangement for an existing piece of music using genre-specific, appropriate stylings.
- Demonstrate collaborative musicianship skills in rehearsal and performance settings.
- Demonstrate proficiency in the use of industry notation software for arranging and composition applications.
- Perform music at a professional level.
- Develop a marketing plan for musical career promotion which includes current social media trends.
- Instruct music students in an individual lesson studio setting.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡	3
<b>MUSIC-103</b> Major Instrument 1 ..... 1	1
<b>MUSIC-149</b> Music Theory 1 ..... 3	3
<b>MUSIC-162</b> Music Ensemble 1 ..... 1	1
<b>MUSIC-177</b> Piano Lab 1 ..... 1	1
<b>MUSIC-189</b> Voice Lab 1 ..... 1	1
<b>MUSIC-190</b> Choir 1 ..... 1	1
<b>PSYCH-199</b> Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course	3
<b>MATH-107</b> College Mathematics ‡ ..... 3 (or) Any 200-level MATH course	3
<b>MUSIC-101</b> Music Business ..... 2	2
<b>MUSIC-104</b> Major Instrument 2 ‡ ..... 1	1
<b>MUSIC-117</b> Music Analysis ‡ ..... 2	2
<b>MUSIC-120</b> Choir 2 ..... 1	1
<b>MUSIC-144</b> Music Notation ..... 1	1
<b>MUSIC-151</b> Music Theory 2 ‡ ..... 4	4
<b>MUSIC-163</b> Music Ensemble 2 ‡ ..... 1	1
<b>MUSIC-178</b> Piano Lab 2 ‡ ..... 1	1
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>MUSIC-105</b> Major Instrument 3 ‡ ..... 1	1
<b>MUSIC-152</b> Composition 1 ‡ ..... 3	3
<b>MUSIC-167</b> Improvisation 1 ‡ ..... 1	1
<b>MUSIC-174</b> Ear Training 1 ‡ ..... 2	2
<b>MUSIC-181</b> Conducting ‡ ..... 1	1
<b>MUSIC-191</b> Performance Techniques 1 ‡ ..... 3	3
<b>ELECTIVES</b> (Six credits) ..... 6	6
<b>MUSIC-106</b> Major Instrument 4 ‡ ..... 1	1
<b>MUSIC-125</b> Music Studio Teaching Methods ‡ ..... 1	1
<b>MUSIC-153</b> Composition 2 ‡ ..... 3	3
<b>MUSIC-184</b> Ear Training 2 ‡ ..... 2	2
<b>MUSIC-192</b> Performance Techniques 2 ‡ ..... 3	3
<b>SOCSCI-197</b> Contemporary American Society ..... 3 (or) Any 200-level HIST or SOCSCI course	3

## CREDITS

Total credits needed to complete this degree

**63**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Photography

PROGRAM CODE: 10-203-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Demonstration of basic computer skills in the Mac OS; the ability to lift, bend and move equipment; and professional DSLR or mirrorless camera with interchangeable lenses and full manual controls

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Use professional equipment and methods to master the skills necessary for this highly visual, creative and exacting profession. MATC's laboratory/studio areas have state-of-the-art traditional and digital cameras, lighting, processing, and finishing equipment. Program requirements include an internship for real-world experience.

## Career Outlook

Photographers work in advertising, photojournalism, and industrial and portrait photography. Employment opportunities also include equipment sales.

## Program Learning Outcomes

- Apply the principles of design and storytelling to develop media products and services.
- Demonstrate proficiency in the use of media software, tools and technology.



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
ENG-195 Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡	3
PHOTO-100 Introduction to Digital Photography ^ .....	1
PHOTO-101 Digital Fundamental Photography ^ .....	3
PHOTO-107 Photographic Trends ^ .....	1
PHOTO-141 Photoshop for Photographers 1 ^ .....	3
PSYCH-199 Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course	3
MATH-123 Math With Business Applications ‡ ^ .....	3
(or) Any 200-level MATH course	
PHOTO-108 Photographic Lighting ‡ ^ .....	3
PHOTO-130 Photographic Composition ^ .....	3
PHOTO-139 Measurement Techniques ‡ ^ .....	3
PHOTO-142 Photoshop for Photographers 2 ‡ ^ .....	3
ENG-197 Technical Reporting ‡..... 3 (or) Any 200-level ENG or SPEECH course	3
PHOTO-103 Digital Photography ‡..... 3	3
PHOTO-106 View Camera Techniques ‡ .....	3
PHOTO-121 Commercial Photography ‡ .....	3
PHOTO-124 Portraiture ‡..... 3	3
SOCSCI-103 Think Critically and Creatively ..... 3 (or) Any 200-level SOCSCI or HIST course	3
ECON-195 Economics..... 3 (or) Any 200-level ECON course	3
PHOTO-114 Photographic Portfolio ‡..... 3	3
PHOTO-166 Photographic Management ‡..... 1	1
PHOTO-173 Photojournalism ‡..... 3	3
PHOTO-180 DSLR Video ‡ .....	3
PHOTO-190 Photography Internship ‡..... 1	1

## CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

^ Counts toward earning the Digital Imaging technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Production Artist

PROGRAM CODE: 31-201-2



Technical Diploma



COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
<b>GRDS-103</b> Design Elements and Principles.....	3
<b>GRDS-107</b> Digital Imaging: Adobe Photoshop .....	3
<b>GRDS-115</b> Typographic Fundamentals.....	3
<b>GRDS-122</b> Vector Graphics: Adobe Illustrator .....	3
<b>GRDS-104</b> Researching and Concepting ‡.....	3
<b>GRDS-110</b> Layout and Publishing: InDesign ‡.....	3
<b>GRDS-111</b> Advertising Design ‡ .....	3
<b>GRDS-117</b> Packaging Design ‡ .....	3
<b>GRDS-128</b> Portfolio Pathway ‡ .....	1

**Location:** Downtown Milwaukee Campus, Online Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

CREDITS  
 Total credits needed to complete this diploma

# 28

### Program Description

Gain the skills in industry-recognized software required for entering the graphic design field. You will learn to prepare designs and layouts, and make modifications according to production standards.

### Career Outlook

Production artists use their technical skills to ensure that the finished design work meets the client's expectations. They are typically the last people to work on a project before it is published. This growing segment of the creative industry offers entry into a variety of careers.

### Program Learning Outcomes

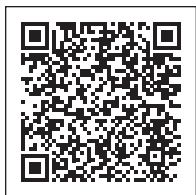
- Apply the principles of design to develop strategic marketing and communications products and services.
- Demonstrate proficiency in the use of design software, tools and technology.
- Implement creative solutions from concept through completion using a formal process.
- Communicate artwork rationale in formal and informal settings.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



**Complete Program Details**

**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)



# Television and Video Production

PROGRAM CODE: 10-701-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level algebra; ability to work outside normal school hours

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Prepare for a career in the production, operation and programming areas of broadcast television, cable, or corporate and commercial video. You will gain hands-on experience in the high-definition studios of Milwaukee PBS, a leader in HDTV production.

## Career Outlook

Graduates have an excellent entry-level employment history in a competitive field. Potential employers are TV stations, cable systems, advertising agencies, private industry, educational institutions, video production houses, and sports and music event production companies.

## Program Learning Outcomes

- Apply the principles of design and storytelling to develop media products and services.
- Demonstrate proficiency in the use of media software, tools and technology.
- Implement creative solutions from concept through completion.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

## COURSES

## CREDITS

<b>TV-101</b>	TV/Video Studio Production Techniques ‡ ^ .....	4
<b>TV-181</b>	Video in Society ‡ ^ .....	1
<b>DCC-150</b>	Introduction to Digital Content Creation ‡ ^ .....	3
<b>TV-108</b>	TV Studio Lighting Techniques ‡ .....	2
<b>ENG-195</b>	Written Communication ‡ ^ .....	3
	(or) ENG-201 English 1 ‡	
<b>PSYCH-199</b>	Psychology of Human Relations .....	3
	(or) Any 200-level PSYCH course	
<b>TV-105</b>	TV/Video Field Production Techniques ‡ ^ .....	4
<b>TV-112</b>	Storytelling Via Post-Production ‡ ^ .....	3
<b>TV-121</b>	TV and Video Production Workshop 1 ‡ ^ .....	3
<b>TV-107</b>	Script Writing for Visual Media ‡ ^ .....	3
<b>TV-160</b>	Introduction to Operational Engineering ‡ ^ .....	1
<b>MATH-107</b>	College Mathematics ‡ ^ .....	3
	(or) Any 200-level MATH course	
<b>TV-110</b>	Advanced Production Techniques ‡ .....	4
<b>TV-161</b>	Intermediate Operational Engineering ‡ .....	2
<b>TV-142</b>	Intermediate Non-Linear Video Editing ‡ .....	3
<b>TV-109</b>	Techniques for Field Audio Acquisition ‡ .....	2
<b>TV-104</b>	TV Studio/Field Set Design ‡ .....	2
	(or) DCC-170 Media Design Elements ‡	
<b>ENG-197</b>	Technical Writing ‡ .....	3
	(or) Any 200-level ENG course	
<b>TV-115</b>	Advanced Broadcast Program Production ‡ .....	4
<b>TV-123</b>	TV and Video Production Co-Op 1 ‡ .....	3
<b>DCC-158</b>	Data Content Management ‡ .....	1
<b>DCC-152</b>	Intermediate Digital Content Techniques ‡ .....	3
<b>TV-106</b>	Lighting, Gaffing and Gripping ‡ .....	2
<b>SOCSCI-197</b>	Contemporary American Society .....	3
	(or) Any 200-level SOCSCI or HIST course	

## CREDITS

Total credits needed to complete this degree

# 65

‡ Prerequisite required.

^ Counts toward earning the TV/Video Studio Production Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# TV/Video Field Production Assistant

PROGRAM CODE: 31-701-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

To get ready for cameras and action, you will gain skills in the basics of field-based production, location lighting, high-definition field camera operation, and principles of non-linear editing and content distribution. Courses are taught in the Milwaukee PBS studios for real-world experience. This program prepares students for on-location, video production entry-level positions.

## Career Outlook

With video so pervasive in our society, individuals well-versed in TV and video field production are in demand to help capture and deliver stories to the audience.

## Program Learning Outcomes

- Apply basic principles of design and storytelling to studio and field productions.
- Demonstrate proficiency in the use of basic media software, tools and technology.
- Assist in production from concept to completion.
- Communicate creative rationale in formal and informal settings.
- Apply ethical business practices.



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
TV-101	TV/Video Studio Production Techniques ‡ ..... 4
TV-181	Video in Society ‡ ..... 1
DCC-150	Intro to Digital Content Creation ‡ ..... 3
DCC-170	Media Design Elements ‡ ..... 2
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
TV-105	TV/Video Field Production Techniques ‡ ..... 4
TV-112	Storytelling via Post-Production ‡ ..... 3
DCC-152	Intermediate Digital Content Techniques ‡ ..... 3
DCC-158	Data Content Management ‡ ..... 1
DCC-159	Audio/Digital Storytelling ‡ ..... 2
ENG-197	Technical Writing ‡ ..... 3 (or) Any 200-level ENG course

## CREDITS

Total credits needed to complete this diploma

**29**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# TV/Video Studio Production Assistant

PROGRAM CODE: 31-701-2



Technical Diploma



COURSES	CREDITS
<b>TV-101</b> TV/Video Studio Production Techniques ‡ .....	4
<b>TV-181</b> Video in Society ‡.....	1
<b>DCC-150</b> Introduction to Digital Content Creation ‡.....	3
<b>TV-108</b> TV Studio Lighting Techniques ‡.....	2
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>TV-105</b> TV/Video Field Production Techniques ‡.....	4
<b>TV-112</b> Storytelling Via Post-Production ‡ .....	3
<b>TV-121</b> TV and Video Production Workshop 1 ‡.....	3
<b>TV-160</b> Intro Operational Engineering ‡ .....	1
<b>TV-107</b> Script Writing for Visual Media ‡ .....	3
<b>MATH-107</b> College Mathematics ‡..... (or) Any 200-level MATH course	3

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

CREDITS

Total credits needed to complete this diploma

**30**

## Program Description

Spotlight your future in the broadcasting industry with the skills attained through this program. You will learn the basics of television and video studio production through courses taught in Milwaukee PBS studios. Areas of study include production, studio lighting, studio camera operation and general TV engineering principles.

## Career Outlook

Studios for cable channels, educational institutions and corporate video studios and broadcasters offer employment opportunities.

## Program Learning Outcomes

- Apply basic principles of design and storytelling to studio and field productions.
- Demonstrate proficiency in the use of basic media software, tools and technology.
- Assist in production from concept to completion.
- Communicate creative rationale in formal and informal settings.
- Apply ethical business practices.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



**Complete Program Details**

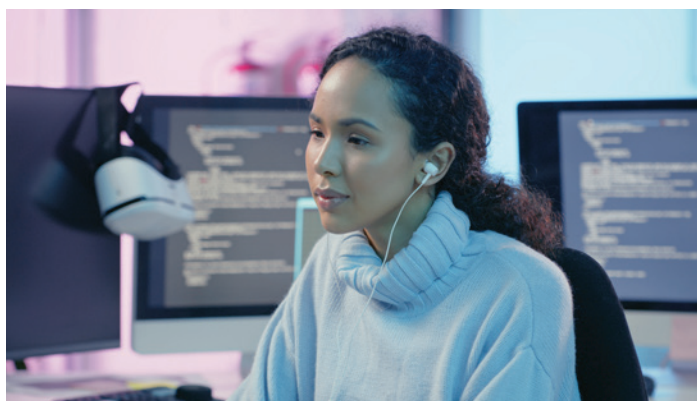
**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)

# Unity Developer

PROGRAM CODE: 31-153-1



Technical Diploma



COURSES	CREDITS
<b>CSG-110</b> Introduction to Computer Simulation and Gaming.....	3
<b>CSG-114</b> Introduction to Game Development/ Programming .....	3
<b>CSG-115</b> CSG Production .....	3
<b>CSG-117</b> Game Logic and Problem-Solving.....	3
<b>MATH-107</b> College Mathematics ‡..... (or) Any 200-level MATH course	3
<b>CSG-118</b> Game Engine Scripting ‡.....	3
<b>CSG-119</b> Designing Interactive Displays ‡.....	3
<b>CSG-120</b> Interactive Display Production 1 .....	1
<b>CSG-128</b> Intermediate Game Development Programmer ‡.....	3
<b>CSG-179</b> CSG API Programming ‡.....	4

CREDITS

Total credits needed to complete this diploma

29

‡ Prerequisite required.  
 Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online.  
 Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** High school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

### Program Description

Make MATC your first choice for learning about 3D software. Through this program, you will develop the skills necessary to learn the Unity 3D software creation tool, which is used to develop simulations, video games, training programs and educational software.

### Career Outlook

Learning the fundamentals of Unity 3D prepares you to develop for multiple consoles and platforms, especially personal computer, web and mobile applications in 2D and 3D.

### Program Learning Outcomes

- Demonstrate the ability to create and manipulate assets using the Unity 3D engine.
- Create understandable and fluid GUI elements.
- Apply 3D math knowledge of transforms, coordinate systems and interpolation.
- Apply object-oriented principles in designing systems and scripting.
- Demonstrate the ability to contribute to all aspects of development on a multidisciplinary team.



### Complete Program Details

**QUESTIONS?** 414-297-6004 or [creativeartspathway@matc.edu](mailto:creativeartspathway@matc.edu)

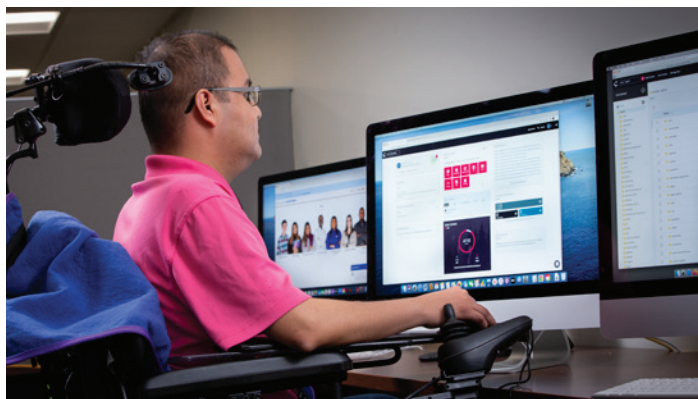


# Web & Digital Media Design

PROGRAM CODE: 10-201-3



Associate Degree



**Location:** Downtown Milwaukee Campus, Oak Creek Campus, Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** Demonstration of basic computer skills in operating systems, word processing and the internet

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

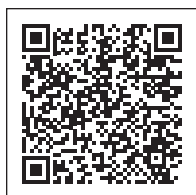
MATC's coursework in interface design, responsive web design, user experience and website development, through coding with HTML, CSS, JavaScript, PHP/MySQL, etc., offers a comprehensive background in web design and front-end web development.

## Career Outlook

Skills in web design, front-end web development and user experience are in demand and are projected to continue to grow rapidly in the next decade.

## Program Learning Outcomes

- Design websites to meet client expectations.
- Produce site(s) using content management systems (CMS).
- Manage a project using user experience (UX) principles.
- Communicate rationale.
- Develop project documents.
- Develop website(s).



## Complete Program Details

**QUESTIONS?** 414-297-6004 or creativeartspathway@matc.edu

COURSES	CREDITS
ENG-195	Written Communication ‡ ^ ..... 3
ITDEV-117	Logic and Problem-Solving ^ ..... 3
WEBDEV-102	Introduction to Digital Media ^ ..... 3
WEBDEV-114	Web Development With HTML/CSS ^ ..... 3
WEBDEV-119	Web Design Overview ‡ ^ ..... 3
MATH-123	Math With Business Applications ‡ ..... 3
WEBDEV-120	Audio and Video Production for the Web ..... 3
WEBDEV-123	Interactive Design ‡ ^ ..... 3
WEBDEV-124	Database Web Design With PHP and MySQL ‡ ^ ..... 3
WEBDEV-143	User Experience – UE 2.0 ..... 3
ENG-197	Technical Reporting ‡ ..... 3
WEBDEV-132	Rich Media for the Web ‡ ..... 3
WEBDEV-133	Content Management Systems ‡ ^ ..... 3
WEBDEV-134	Responsive Web Design ‡ ^ ..... 3
WEBDEV-135	User Experience for the Web ..... 3
MKTG-165	Digital Marketing ^ ..... 3
PSYCH-199	Psychology of Human Relations ..... 3
SOCSOCI-197	Contemporary American Society ..... 3
WEBDEV-140	Web Development With JavaScript and jQuery ‡ ^ ..... 3
WEBDEV-198	Internship ‡ ..... 1
WEBDEV-199	Portfolio ‡ ..... 3

## CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

^ Counts toward earning the Front-End Web Developer technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# GENERAL EDUCATION

The General Education Academic & Career Pathway is MATC's largest, providing a strong academic foundation for students pursuing a wide range of educational and career goals. We offer a dynamic combination of liberal arts and sciences courses, equipping students with essential skills in critical thinking, communication and problem-solving. Through an interdisciplinary approach, our curriculum fosters intellectual curiosity and academic excellence in the arts, humanities, natural sciences and social sciences. Students have the flexibility to explore and customize their learning experiences, preparing them for seamless transitions into further education or the workforce. Our programs empower students to engage thoughtfully with the world, contribute meaningfully to their communities, and drive positive change.

## Pathway Offices

**Downtown Milwaukee Campus**, C Building, Room C204, **414-297-6584**

**Mequon Campus**, Room A108

**Oak Creek Campus**, Room A121

**West Allis Campus**, Room 103

[genedpathway@matc.edu](mailto:genedpathway@matc.edu)



Associate of Arts

Associate of Arts – Accelerated Online

Associate of Arts – Art: Pre-Major

Associate of Arts Communication: Pre-Major

Associate of Arts Community Engagement: Pre-Major

Associate of Arts: Global Studies: Pre-Major

Associate of Arts: Spanish: Pre-Major

Associate of Arts – Teacher Education: Pre-Major

Associate of Science

Associate of Science – Chemical Technology: Pre-Major

Associate of Science – Economics: Pre-Major

Associate of Science – Food Science Technology: Pre-Major

Associate of Science Psychology

Foundations of Teacher Education



**AD** Associate Degree program

**TD** Technical Diploma program

**C** Certificate program

# Associate of Arts Liberal Arts and Sciences Four-Year College Transfer Program



Associate Degree

PROGRAM CODE: **20-800-1**



**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Arts degree provides you with the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. The courses in this degree emphasize the humanities and allow students many options to analyze information, think critically and creatively, respect diversity, and collaborate with others. Courses may be taken online or in person. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for more information.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Humanities – 12 credits required</b> .....	<b>12</b>
Select credits from 200-level courses in the Humanities (such as English, music, speech, art, foreign language). Examples: SPEECH-212, FLANG-214.	
Three credits must be in 200-level diversity/ethnic studies courses.	
Three credits must be in 200-level fine arts courses. Examples: MUSIC-205, ART-201, ENG-207 ‡.	
See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Social Sciences – 12 credits required</b> .....	<b>12</b>
Select credits from 200-level courses in the Social Sciences. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
<b>World/Foreign Language - 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG	
Most four-year universities require four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Mathematics – 3 credits required</b> .....	<b>3</b>
Select from any 200-level MATH courses, except MATH-260.	
<b>Natural Sciences – 7 credits required</b> .....	<b>7</b>
Select from 200-level BIOSCI, CHEM, GEOSCI or PHYS courses. Four credits must be in a laboratory science. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 10 credits required</b> .....	<b>10</b>
Additional foreign language credits are not required but are recommended.	

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

# Associate of Arts Online Accelerated

PROGRAM CODE: 20-800-1



Associate Degree



**Location:** Online Campus

**Start Dates:** August, January and June

**Admission Requirements:** High school diploma or equivalent. Admission to this program requires an interview with the Associate of Arts Online – Accelerated coordinator. To initiate that process and schedule an interview, see this program’s webpage at [matc.edu](http://matc.edu).

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Liberal Arts and Sciences Four-Year College Transfer Program

This online accelerated degree program provides you with the first two years of bachelor’s degree credit courses that will transfer to four-year colleges and universities. You can complete this degree entirely online and in one year of full-time study through five sessions. A session lasts seven or eight weeks. The degree also can be completed in more time, per your schedule. Students who plan to transfer are advised to consult with the four-year college/ university regarding specific requirements for a major, and the credit transfer details. Contact an MATC advisor for more information.

## Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



## Complete Program Details

**QUESTIONS?** 414-297-6584 or [genedpathway@matc.edu](mailto:genedpathway@matc.edu)

## COURSES

## CREDITS

### Quin 1: Fall term, first session

<b>ENG-201</b>	English 1 ‡	3
<b>PHYED-210</b>	An Active Approach to Wellness and Fitness	3
<b>ECON-201</b>	Principles of Microeconomics	3
<b>HIST-211</b>	America Through 1877	3

### Quin 2: Fall term, second session

<b>SOCSCI-203</b>	Introduction to Sociology	3
<b>SPEECH-206</b>	Intercultural Communication	3
<b>ECON-202</b>	Principles of Macroeconomics	3
<b>PSYCH-231</b>	Introductory Psychology	3

### Quin 3: Spring term, third session

<b>ENG-202</b>	English 2 ‡	3
<b>MATH-200</b>	Intermediate Algebra ‡	4
<b>FLANG-202</b>	Spanish 1	4

Most four-year universities require at least four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.

<b>HIST-212</b>	America Since 1877	3
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### Quin 4: Spring term, fourth session

<b>SOCSCI-221</b>	American National Government and Politics Today	3
<b>ART-201</b>	Understanding Art	3
<b>GEOSCI-232</b>	Earth Science	3
<b>GEOSCI-234</b>	Earth Science Laboratory	1
<b>SOCSCI-217</b>	Valuing Diversity	3

### Quin 5: Summer term, fifth session

Choose any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
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**Additional Electives – 6 credits required** ..... 6

Additional foreign language is not required but is recommended.

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: Consult the four-year college or university you plan to attend regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher.



# Associate of Arts Art: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡ and ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech (or) SPEECH-203 Interpersonal Communication (or) SPEECH-206 Intercultural Communication	
<b>Humanities – 12 credits required</b> .....	<b>12</b>
ART-201 Understanding Art ART-202 Renaissance to Modern Art and Architecture ART-203 Ancient to Medieval Art and Architecture Select one additional three-credit 200-level Humanities course; see list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>World/Foreign Language – 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG Most four-year universities require at least four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Social Sciences – 9 credits required</b> .....	<b>9</b>
See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Diversity/Ethnic Studies – 3 credits required</b> .....	<b>3</b>
See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Mathematics/Natural Sciences</b> .....	<b>11</b>
11 credits required (combined between Math and Natural Sciences) Minimum of 11 total credits in Mathematics and Natural Sciences to include: 3-4 credits of Math at the level of intermediate algebra or above, and 7-8 credits of Natural Science. See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Art Courses – 9 credits required</b> .....	<b>9</b>
ART-204 Drawing by Observation GRDS-103 Design Elements and Principles GRDS-107 Digital Imaging	

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Liberal Arts and Sciences Four-Year College Transfer Program

The study of art and design develops creative thinkers, artist professionals and cultural leaders through a cross-disciplinary curriculum that balances innovation, traditional craftsmanship, critical thinking and scholarly civic engagement. This pre-major aligns with transfer agreements with the University of Wisconsin-Milwaukee to give you a head start on a bachelor's degree in the arts. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for more information.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. See an MATC advisor for information.

# Associate of Arts Communication: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Arts with an emphasis on communication studies includes a combination of theory and pragmatic approaches to the wide-ranging field of communication. Students will gain proficiency in a myriad of communication contexts, including, but not limited to, public speaking, conflict and communication, and interpersonal and intercultural communication. With a solid introduction to the communication field of study, you will develop skills to generate captivating messages for wherever your career endeavors take you: nonprofit work, public relations assistant or communications planner.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 12 credits required</b> .....	<b>12</b>
12 credits from any 200-level SPEECH course	
<b>World/Foreign Language* – 4 credits required</b> .....	<b>4</b>
Take 4 credits from any 200-level FLANG course or 100-level INTP course.	
See your Pathway advisor for details.	
<b>Social Sciences – 12 credits required</b> .....	<b>12</b>
Select 200-level courses in the Social Sciences. See list of courses in your program plan. Discuss your selection with your Pathway advisor.	
<b>Mathematics – 4 credits required</b> .....	<b>4</b>
Take 3 to 4 credits from 200-level MATH course.	
<b>Sciences – 7 credits required</b> .....	<b>7</b>
Four credits must be lab. See list of courses in your program plan. Discuss your selection with your Pathway advisor.	
<b>Fine Arts – 3 credits required</b> .....	<b>3</b>
Take 3 credits from the following courses:	
ART-201 Understanding Art	
ART-202 Renaissance-Modern Art and Architecture	
ART-203 Ancient to Medieval Art and Architecture	
ART-204 Drawing From Observation	
MUSIC-205 Music Appreciation	
ENG-207 Intro to Creative Writing ‡	
SPEECH-212 Introduction to Theater	
<b>Humanities – 6 credits required</b> .....	<b>6</b>
Select 200-level courses in the Humanities. See list of courses in Program Plan. Discuss selections with your Pathway advisor.	
<b>Diversity – 3 credits required</b> .....	<b>3</b>
Select 200-level courses in Diversity. See list of courses in Program Plan. Discuss your selections with your Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course.	

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

\*Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. Students in their final semester should choose a course incorporating service learning. Curriculum requirements are subject to change.

# Associate of Arts Community Engagement: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Liberal Arts and Sciences Four-Year College Transfer Program

This Associate of Arts program prepares you to create positive change through advocacy and community engagement. The curriculum explores contemporary urban issues with an emphasis on social action and diverse perspectives. Through this program, students earn the first two years of bachelor's degree credit courses that will transfer to a four-year college/university. Courses may be taken online or in person. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and credit transfer details. Contact an MATC advisor for more information.

## Learning Outcomes

Effective Communication, Problem-Solving, Global Competence, Professionalism, Critical Thinking and Information Literacy

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. Students in their final semester should choose a course incorporating service learning. Curriculum requirements are subject to change.



## Complete Program Details

**QUESTIONS?** 414-297-6584 or [genedpathway@matc.edu](mailto:genedpathway@matc.edu)

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-203 Interpersonal Communication	
<b>Humanities – 15 credits required</b> .....	<b>15</b>
ART-201 Understanding Art (or) ENG-207 Intro to Creative Writing ‡	
Any 200-level ENG diversity-focused literature course; choose one of the following:	
ENG-218 African American Literature 1 ‡	
ENG-219 African American Literature 2 ‡	
ENG-220 Native American Literature ‡	
ENG-221 Native American Women in Literature ‡	
ENG-222 Images of Women in Literature ‡	
ENG-223 African American Literature By and About Black Women ‡	
ENG-224 Introduction to U.S. Latino Literature ‡	
Any additional 200-level FLANG, MUSIC, ENG, SPEECH or ART (9 or more credits); additional foreign language is not required but is recommended.	
<b>Social Sciences – 15 credits required</b> .....	<b>15</b>
SOCSCI-203 Introduction to Sociology	
SOCSCI-217 Valuing Diversity	
SOCSCI-221 American National Government and Politics Today	
HIST-216 History of American Minorities (or) HIST-217 Contemporary Civil Rights	
ECONOMICS: ECON-195 (or) any 200-level ECON course	
<b>World/Foreign Language* – 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits.	
<b>Mathematics – 3 credits required</b> .....	<b>3</b>
at the level of intermediate algebra or above	
<b>Natural Sciences – 7 credits required</b> .....	<b>7</b>
Four credits must be in a laboratory science.	
GEOSCI-232 Earth Science (3 credits), take concurrently with GEOSCI-234 Earth Sciences Laboratory (1 credit)	
Any 200-level natural science technology or environmental sciences-related course; choose one of the following:	
GEOSCI-233 Environmental Science	
GEOSCI-246 Climate Change Fundamentals	
BIOSCI-260 Plagues, People and Power ‡	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 4 credits required</b> .....	<b>4</b>

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

\*Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.



# Associate of Arts Global Studies: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Liberal Arts and Sciences Four-Year College Transfer Program

This Associate of Arts program prepares you for effective intercultural interaction in a globalized society. The curriculum explores contemporary global issues with an emphasis on foreign language study, multicultural perspectives and service learning. Students will develop effective communication skills and learn strategies to support cultural exploration in a global context. Students earn the first two years of bachelor's degree credit courses that will transfer (consult with the destination institution regarding specific requirements for a major and credit transfer details). Courses may be taken online or in person.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-206 Intercultural Communication	
<b>World/Foreign Language - 8 credits required</b> .....	<b>8</b>
Two semesters of the same language	
Most four-year universities require at least four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Humanities – 12 credits required</b> .....	<b>12</b>
<b>Social Sciences – 15 credits required</b> .....	<b>15</b>
SOCSCI-208 Global Cultures and Politics (or) GLOBAL-115 International Field Studies	
SOCSCI-217 Valuing Diversity	
SOCSCI-224 Peoples and Cultures of the World	
HIST-229 World History Since 1500	
ECON-223 Ecological Economics (or) ECON-202 Principles of Macroeconomics	
<b>Mathematics – 4 credits required</b> .....	<b>4</b>
At the level of intermediate algebra or above	
<b>Natural Sciences – 7 credits required</b> .....	<b>7</b>
Four credits must be lab.	
GEOSCI-232 Earth Science (3 credits), take concurrently with GEOSCI-234 Earth Sciences Laboratory (1 credit)	
Any 200-level natural science technology or environmental sciences-related course; choose one of the following:	
GEOSCI-233 Environmental Science	
GEOSCI-246 Climate Change Fundamentals	
BIOSCI-260 Plagues, People and Power ‡	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 2 credits required</b> .....	<b>2</b>
Choose any 200-level courses.	

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. Students in their final semester should choose a course incorporating service learning. See an MATC advisor for information.



# Associate of Arts Spanish: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



**Location:** Downtown Milwaukee Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Transfer:** Will transfer to one or more four-year institutions  
**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Arts Spanish Pre-Major provides the initial two years of coursework focused on Spanish language, literature and cultures, aimed at transfer to four-year degree programs. Tailored for those planning to major in Spanish or related fields, it ensures transferable credits and emphasizes linguistic proficiency, critical thinking and cultural understanding. The program offers online and face-to-face classes, advising students to consult with future institutions for major-specific requirements. With access to academic advising, students are guided through their course selection and transfer processes, preparing them for advanced studies and global opportunities in Spanish-speaking contexts.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Spanish – 17 credits required</b> .....	<b>17</b>
FLANG-202 Spanish 1	
FLANG-205 Spanish 2	
FLANG-213 Spanish 3	
FLANG-214 Spanish 4	
FLANG-218 Spanish 5 (or) FLANG-228 Spanish for Spanish Speakers	
<b>Humanities – 6 credits required</b> .....	<b>6</b>
ART-201 Understanding Art	
Three credits must be in 200-level diversity/ethnic studies courses. See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Social Sciences – 12 credits required</b> .....	<b>12</b>
SOCSCI-250 Introduction to Philosophy	
See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Mathematics – 3 credits required</b> .....	<b>3</b>
MATH-200 Intermediate Algebra ‡	
<b>Natural Sciences – 7 credits required</b> .....	<b>7</b>
Select from 200-level BIOSCI, CHEM, GEOSCI or PHYS courses. Four credits must be in a laboratory science. See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 3 credits required</b> .....	<b>3</b>
Choose any 200-level courses	

**CREDITS**

Total credits needed to complete this degree

60

‡ Prerequisite required.  
 Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).  
 Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. See an MATC advisor for information.

# Associate of Arts Teacher Education: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Oak Creek Campus, West Allis Campus

**Start Dates:** August, January and June

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Liberal Arts and Sciences Four-Year College Transfer Program

To prepare students for a teaching career, this program is designed for students interested in entering K-12 teacher licensing programs at four-year colleges and universities. The program enables you to fulfill the first two years of requirements for a bachelor's degree at MATC. The curriculum includes courses focused on the foundations of urban education. Some of the colleges and universities that MATC students can transfer to include Alverno College, Carroll University, Lakeland University, Marquette University, Mount Mary University, UW-Milwaukee, UW-Parkside and UW-Whitewater.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

### STEPS TO SUCCESS

- Complete the MATC admissions process.
- Enroll in EDF-249 Orientation to Urban Teaching.
- Meet with advisor at least once every semester to select courses.
- Earn your associate degree through the Teacher Education: Pre-Major at MATC, including four teacher preparation courses.
- Complete your associate degree with a GPA of 2.5 or higher.
- Apply to the School of Education at one of the partnering four-year colleges/universities, where you will continue your studies to receive your bachelor's degree in education.
- After you receive your bachelor's degree, you will be eligible to apply for a Wisconsin teaching license.

### Learning Goals and Curriculum Requirements

The curriculum includes four courses in Educational Foundations focused on the historical, cultural, sociological and philosophical foundations of urban education: EDF-249 Orientation to Urban Teaching, EDF-253 Issues in Urban Teaching, EDF-254 Field Experience in Urban K-12 Classrooms and EDF-255 Introduction to Teaching. Students complete observational and participatory experiences with Milwaukee Public Schools.

<b>English/Speech – 9 credits required</b> .....	<b>9</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
SPEECH-201 Elements of Speech	
<b>Social Science – 15 credits required</b> .....	<b>15</b>
<b>Mathematics – 6 credits required</b> .....	<b>6</b>
<b>Natural Science – 7 credits required</b> .....	<b>7</b>
GEOSCI-233	
+ course with a lab	
<b>Humanities – 15 credits required</b> .....	<b>15</b>
ART-201, MUSIC-205, ENG-207 ‡ (or) SPEECH-212, ENG-220 ‡	
+ three more courses	
<b>World/Foreign Language – 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
<b>Elective – 1 credit required</b> .....	<b>1</b>

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

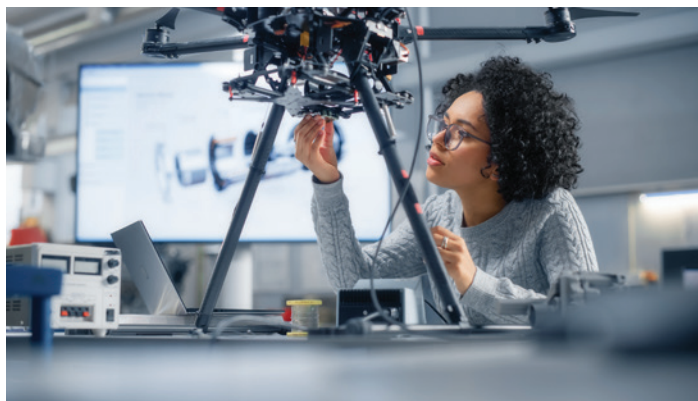
Note: It is important to consult the four-year institution regarding transferability of your selected courses. Contact an MATC advisor for information.

# Associate of Science Liberal Arts and Sciences Four-Year College Transfer Program

PROGRAM CODE: 20-800-2



Associate Degree



**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Science degree provides you with the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. The courses in this degree emphasize the sciences and allow students many options to analyze information, think critically and creatively, respect diversity, and collaborate with others. Courses may be taken online or in person. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for information.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Humanities – 6 credits required</b> .....	<b>6</b>
Select 200-level courses in the Humanities. See list of courses in Program Plan; discuss your selections with Pathway advisor.	
<b>Social Sciences – 6 credits required</b> .....	<b>6</b>
Select 200-level courses in the Social Sciences. See list of courses in Program Plan; discuss your selections with Pathway advisor.	
<b>Diversity/Ethnic Studies – 3 credits required</b>	
Three credits are required in 200-level Diversity/Ethnic Studies courses. See list in Program Plan. The three credits can count toward the six credits required for Humanities or for Social Sciences.	
<b>World/Foreign Language – 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Mathematics – 5 credits required</b> .....	<b>5</b>
MATH-231 Analytic Geometry and Calculus 1 ‡	
<b>Natural Sciences – 15 credits required</b> .....	<b>15</b>
(8 credits must be lab) See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 12 credits required</b> .....	<b>12</b>

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.



# Associate of Science Chemical Technology: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



**Location:** Downtown Milwaukee Campus, Oak Creek Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Science Chemical Technology: Pre-Major provides the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. MATC's state-of-the-art labs give students an advantage as they prepare for bachelor's degree studies and the workforce. Courses emphasize chemistry and prepare you for both transfer to a four-year degree program and to begin work in an industrial chemistry lab. Summer research/internship opportunities are available. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for information.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Humanities – 6 credits required</b> .....	<b>6</b>
See courses listed on Program Plan; discuss your course selections with Pathway advisor.	
Three credits must be in 200-level diversity/ethnic studies courses.	
Three credits must be in 200-level fine arts courses. Examples: MUSIC-205, ART-201, ENG-207 ‡.	
<b>Social Sciences – 6 credits required</b> .....	<b>6</b>
Select 200-level courses in the Social Sciences. See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
<b>World/Foreign Language – 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Natural Sciences – 20 credits required</b> .....	<b>20</b>
CHEM-211 Chemistry 1 ‡	
CHEM-212 Chemistry 2 ‡	
CHEM-215 Quantitative Chemical Analysis ‡	
CHEM-217 Organic Chemistry 1 ‡	
CHEM-219 Organic Chemistry Lab 1 ‡	
<b>Mathematics – 5 credits required</b> .....	<b>5</b>
MATH-231 Analytic Geometry and Calculus 1 ‡	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 7 credits required</b> .....	<b>7</b>
CHEMT-103 Introduction to Chemical Technology	
CHEMT-107 Industrial Methods of Analysis ‡	
CHEMT-109 Chemical Processes ‡	

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.



# Associate of Science Economics: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Liberal Arts and Sciences Four-Year College Transfer Program

Economic issues affect you as a consumer, producer, worker, citizen and investor. Gain knowledge of economics and develop the analytical, critical thinking and communication skills needed for transfer to a four-year college and to begin a career related to economics, business or finance. You also will become competent in making personal decisions that rely on understanding economics. This program provides the first two years of bachelor's degree credit courses that can transfer to four-year colleges and universities. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major. Contact an MATC advisor for information.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

<b>COURSES</b>	<b>CREDITS</b>
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Humanities – 6 credits required</b> .....	<b>6</b>
Three credits must be in 200-level diversity/ethnic studies courses – see list in Program Plan.	
Three credits must be in 200-level courses in the Humanities – see list of courses in Program Plan.	
Discuss your course selections with Pathway advisor.	
<b>World/Foreign Language - 4 credits required</b> .....	<b>4</b>
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Economics – 18 credits required</b> .....	<b>18</b>
ECON-201 and ECON-202; and select 12 additional credits from 200-level Economics (ECON) courses, see Program Plan.	
<b>Mathematics – 11 credits required</b> .....	<b>11</b>
MATH-201 College Algebra ‡	
MATH-211 Survey in Calculus and Analytic Geometry ‡	
MATH-260 Basic Statistics ‡	
<b>Natural Sciences – 9 credits required</b> .....	<b>9</b>
See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

# Associate of Science Food Science Technology: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level chemistry and advanced algebra

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Science Food Science Technology: Pre-Major provides the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. MATC's state-of-the-art labs give students an advantage as they prepare for bachelor's degree studies and the workforce.

Courses emphasize biological and physical sciences and prepare you for both transfer to a four-year degree program and to begin work in an industrial food lab. Summer research/internship opportunities are available.

## Learning Outcomes

Scientific Method, Problem-Solving, Effective Communication, Information Literacy, Global Awareness, Analytical/Critical Thinking, Professionalism

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.



**Complete Program Details**

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡ and ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Humanities – 6 credits required</b> .....	<b>6</b>
Select 200-level courses in the Humanities. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Social Sciences – 3 credits required</b> .....	<b>3</b>
Select 200-level courses in the Social Sciences. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
<b>Diversity – 3 credits required</b> .....	<b>3</b>
Select 200-level courses in Diversity/Ethnic Studies. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
<b>World/Foreign Language - 4 credits required</b> .....	<b>4</b>
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Mathematics – 5 credits required</b> .....	<b>5</b>
MATH-231 Analytic Geometry and Calculus 1 ‡	
<b>Natural Sciences – 18 credits required</b> .....	<b>18</b>
CHEM-211 Chemistry 1	
BIOSCI-257 Biology 1	
CHEM-212 Chemistry 2	
BIOSCI-197 Microbiology	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 5 credits required</b> .....	<b>5</b>
FSTEC-190 Food Science	
FSTEC-103 Manufacturing Processes and Lab Science	
(or) FSTEC-101 Food Quality Management	
FSTEC-191 Food Science Nutrition	
(or) BIOSCI-220 Intro to Nutritional Science	
<b>Additional Electives – 1 credits required</b> .....	<b>1</b>
Select any 100- or 200-level course. Discuss your selections with your Pathway Advisor.	

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Associate of Science Psychology: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



**Location:** Downtown Milwaukee Campus, Oak Creek Campus, Mequon Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer to one or more four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Liberal Arts and Sciences Four-Year College Transfer Program

This pre-major reflects the diversity of psychology as a science and profession. Applied research opportunities are available to MATC students through affiliations with local organizations. The coursework helps prepare students for many career possibilities in psychology, education, social and welfare services, health services, and industry. This program provides the first two years of bachelor's degree credit courses that can transfer to four-year colleges and universities. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major. Contact an MATC advisor for more information.

### Learning Outcomes

- Effective Communication
- Problem-Solving
- Global Competence
- Professionalism
- Critical Thinking
- Information Literacy



### Complete Program Details

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>English – 6 credits required</b> .....	<b>6</b>
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
<b>Speech – 3 credits required</b> .....	<b>3</b>
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
<b>Humanities – 3 credits required</b> .....	<b>3</b>
Three credits must be in 200-level Diversity/Ethnic Studies – see list in Program Plan.	
Three credits must be in 200-level Humanities – see list of Humanities courses in Program Plan.	
Discuss your course selections with Pathway advisor.	
<b>World/Foreign Language – 8 credits required</b> .....	<b>8</b>
Two semesters of the same language	
Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
<b>Psychology – 18 credits required</b> .....	<b>18</b>
PSYCH-230 Cross-Cultural Psychology ‡	
PSYCH-231 Introductory Psychology	
PSYCH-232 Abnormal Psychology ‡	
PSYCH-240 Health Psychology ‡	
PSYCH-270 Educational Psychology ‡	
PSYCH-233 Social Psychology ‡	
(or) PSYCH-237 Child Psychology ‡	
(or) PSYCH-238 Lifespan Psychology	
(Note: only one of these last three courses will count toward the pre-major)	
<b>Mathematics – 7 credits required</b> .....	<b>7</b>
MATH-211 Survey in Calculus and Analytic Geometry ‡	
MATH-260 Basic Statistics ‡	
<b>Natural Sciences – 9 credits required</b> .....	<b>9</b>
Select 9 credits of 200-level courses with lab from at least two areas of natural sciences. See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
<b>Physical Education – 3 credits required</b> .....	<b>3</b>
Select any 200-level PHYED course(s).	
<b>Additional Electives – 3 credits required</b> .....	<b>3</b>

### CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

# Foundations of Teacher Education

PROGRAM CODE: 10-522-2



Associate Degree

(COMING SOON)



**Location:** TBD

**Start Dates:** January, August and June

**Admission Requirement:** High school diploma or equivalent

**Transfer:** Will transfer specific four-year institutions

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

The Foundations of Teacher Education program provides candidates with the opportunity to embark upon one of the most rewarding professions in the world — teaching! Successful candidates will gain the necessary knowledge and skills to serve in a variety of career roles including paraprofessionals, educational assistants, substitute teachers, special education aides and preschool teachers. In addition, candidates wishing to pursue a bachelor's degree at a four-year institution will be well prepared to continue their studies in education.

### Career Outlook

The Foundations of Teacher Education program supports the employment demands surrounding the nationwide shortage of teachers and educational support staff.

### Program Learning Outcomes

Candidates will complete core courses in education including method courses regarding techniques in teaching in specific content areas, courses related to educational practices, technology in education, behavior management, equity, special education, and child and adolescent development, as well as courses on ways to support students with disabilities.



**Complete Program Details**

**QUESTIONS?** 414-297-6584 or genedpathway@matc.edu

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
<b>FOTE-103</b> EDU: Intro to Ed Practices.....	3
<b>FOTE-105</b> EDU: Behavior Management.....	3
<b>FOTE-106</b> EDU: Child & Adolescent Development .....	3
<b>MATH-135</b> Quantitative Reasoning ‡..... (or) Any 200-level MATH course	3
<b>ENG-196</b> Oral/Interpersonal Comm .....	3
(or) Any 200-level ENG or SPEECH course except ENG-200 or ENG-201	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>FOTE-102</b> EDU: Techniques in Reading .....	3
<b>FOTE-107</b> EDU: Overview of Special Education .....	3
<b>FOTE-118</b> EDU: Techniques in Math.....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI course	
<b>SOCSCI-172</b> Intro to Diversity Studies .....	3
<b>FOTE-112</b> EDU: Equity in Education .....	3
<b>FOTE-114</b> Edu: Techniques in Lang Arts .....	3
<b>FOTE-129</b> EDU: Practicum 1 .....	3
<b>FOTE-124</b> EDU: Supporting Students With Disabilities .....	3
<b>FOTE-104</b> EDU: Technology in Education .....	3
<b>FOTE-119</b> EDU: Techniques in Social Studies.....	3
<b>FOTE-120</b> EDU: Techniques in Science .....	3
<b>FOTE-131</b> EDU: Practicum 2 .....	3

### CREDITS

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



# HEALTHCARE

The Healthcare Pathway offers cutting-edge programs to prepare you, as a 21st-century healthcare provider, with the necessary leadership skills to strengthen and build the health and well-being of our community. We are proud to work with leading healthcare organizations to offer innovative clinical and cultural-immersion experiences for our students. The college is proud to offer healthcare scholarships for students in need of financial assistance. We offer a state-of-the-art dental clinic, simulation labs and food science kitchen, and many other impressive spaces where you will grow both personally and professionally.

## Pathway Offices

**Downtown Milwaukee Campus**, H Building, 3rd floor, **414-297-6263**

**Mequon Campus**, Room A108, **262-238-2281**

**Oak Creek Campus**, Room A121

**West Allis Campus**, Room 103

[healthpathway@matc.edu](mailto:healthpathway@matc.edu)



Anesthesia Technology AD  
Cardiovascular Technology – Echocardiography AD  
Cardiovascular Technology – Invasive AD  
Community Health and Nutrition Navigator AD  
Dental Assistant TD  
Dental Hygiene AD  
Diagnostic Medical Sonography AD  
Dietary Manager C  
EKG Technician C  
Enhanced Yoga Instructor TD  
Health Information Technology AD  
Health Unit Coordinator TD  
Healthcare Customer Service C  
Healthcare Services Management AD  
Integrative Health AD  
LPN to ADN Progression AD

Medical Assistant TD  
Medical Coding Specialist TD  
Medical Interpreter TD  
Medical Laboratory Technician AD  
Nursing Assistant TD  
Nutrition and Dietetic Technician AD  
Occupational Therapy Assistant AD  
Pharmacy Technician TD  
Phlebotomy TD  
Physical Therapist Assistant AD  
Practical Nursing TD  
Radiography AD  
Registered Nursing AD  
Respiratory Therapy AD  
Surgical Technologist AD



**AD** Associate Degree program  
**TD** Technical Diploma program  
**C** Certificate program

Students enrolled in Healthcare Pathway programs that require clinical or fieldwork placement must meet the requirements of the program and the clinical/fieldwork requirements in order to successfully complete their program.

### Health Record Requirements

Continuation in a Healthcare Pathway program is contingent upon completion and approval of health records as required for each program. Program specific information can be found at [matc.edu](http://matc.edu) under the appropriate program page.

Health requirements as determined by the Healthcare Pathway and clinical/field placement agency must be completed by the designated date in order to enroll in the course of study and enter the clinical/field placement agency. **Meeting the health record requirements is the sole responsibility of the student.** Failure to comply with all health, drug test and criminal background requirements may result in immediate removal from the program.

Health requirements include all vaccinations, including the COVID-19 vaccine if required by the clinical site or fieldwork agency. The clinical site or fieldwork agency procedures for exceptions may apply. Due to the likelihood of a placement site requiring the COVID-19 vaccine, it is strongly recommended that Healthcare Pathway students talk with their healthcare provider and consider completion of vaccination, prior to the start of the academic semester. If the vaccination is required by the clinical site, and the student declines the vaccination, it may impact a student's ability to complete their program requirements thus resulting in a delay in clinical coursework and/or an inability to graduate with a degree or credential.

MATC is not requiring students to get vaccinated; however, as a guest at the clinical and fieldwork sites, it may be a requirement for placement to ensure safety of the patients/clients. Students who do not wish to receive the COVID-19 vaccination should arrange an appointment to speak with the clinical coordinator.

# Anesthesia Technology

PROGRAM CODE: 10-541-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology, chemistry and algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Become an anesthesia technologist and you'll be a vital member of the anesthesia care team. These technologists work under the direction of the anesthesia provider and are proficient in the acquisition, preparation and application of the equipment required for the delivery of anesthesia care. Graduates are eligible to take the American Society of Anesthesia Technologists & Technicians (ASATT) National Certification Examination to become certified as an Anesthesia Technologist (Cer.A.T.T.).

## Career Outlook

Anesthesia technologists are in high demand.

## Program Learning Outcomes

- Exhibit patient care skills.
- Model professional behaviors as an AT.
- Provide psychological support and explain procedures to patients.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>ANTECH-102</b> Introduction to Anesthesia Technology ‡	2
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
<b>ENG-195</b> Written Communication ‡ (or) ENG-201 English 1 ‡	3
<b>HEALTH-101</b> Medical Terminology ^	3
<b>HEALTH-104</b> Contemporary Healthcare Practices ^	2
<b>HEALTH-107</b> Digital Literacy for Healthcare ^	2
<b>ANTECH-117</b> AT Fundamentals 1 ‡	3
<b>ANTECH-118</b> AT Instrumentation 1 ‡	3
<b>ANTECH-120</b> AT Clinical Procedures ‡	2
<b>BIOSCI-179</b> Advanced Anatomy and Physiology ‡ (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
<b>CVTECH-110</b> EKG Analysis ‡	2
<b>ENG-197</b> Technical Reporting ‡ (or) Any 200-level ENG or SPEECH course	3
<b>PSYCH-199</b> Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
<b>SOCSCI-197</b> Contemporary American Society ..... (or) Any 200-level SOCSCI or HIST course	3
<b>ANTECH-133</b> Anesthetics ‡	3
<b>ANTECH-137</b> AT Fundamentals 2 ‡	3
<b>ANTECH-138</b> AT Instrumentation 2 ‡	3
<b>ANTECH-139</b> Anesthesia Technology Clinical Experience 1 ‡	3
<b>CVTECH-132</b> Physics of Medicine ‡	3
<b>ANTECH-185</b> Anesthesia Technology Clinical Seminar ‡	2
<b>ANTECH-186</b> Anesthesia Technology Clinical Experience 2 ‡	4
<b>ANTECH-187</b> Anesthesia Technology Clinical Experience 3 ‡	4

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350 [caahep.org](http://caahep.org)

# Cardiovascular Technology – Echocardiography

PROGRAM CODE: 10-521-2



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology, chemistry and algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Learn to perform echocardiograms, a widely used diagnostic test for heart disease. Echocardiography technologists perform the tests in hospitals and outpatient facilities, utilizing ultrasound equipment to gather data about the cardiac chambers, valves and vessels leading to and from the heart. Completing this program fulfills prerequisites to take the Registered Cardiac Sonographer (CCI) or Registered Diagnostic Cardiac Sonographer (ARDMS) exam.

### Career Outlook

The continuing demand for echocardiography technologists indicates strong employment opportunities.

### Program Learning Outcomes

- Exhibit patient care skills.
- Model professional behaviors as a CVT.
- Explain diagnostic and/or interventional procedures.



### Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ ^ .....	4
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
<b>DMS-200</b> Introduction to DMS ‡ .....	3
<b>DMS-221</b> Sonography Physics 1 ‡ .....	3
<b>CVTECH-115</b> Essentials of Cardiac Care 1 ‡ ^ .....	4
<b>CVTECH-102</b> Introduction to CVT ‡ ^ .....	2
<b>CVTECH-110</b> EKG Analysis ‡ ^ .....	2
<b>CVTECH-118</b> Echocardiography Basics ‡ .....	3
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) Any 200-level ENG or SPEECH course	
<b>CVTECH-121</b> Echo Clinical Procedures ‡ .....	2
<b>CVTECH-144</b> Advanced Echo Practicum ‡ .....	3
<b>CVTECH-145</b> Echocardiography Fundamentals ‡ .....	4
<b>CVTECH-149</b> Echocardiography Clinical Experience 1 ‡ .....	2
<b>DMS-222</b> Sonography Physics 2 ‡ .....	2
<b>ELECTIVES</b> (Two credits) .....	2
<b>CVTECH-142</b> Echo Case Review ‡ .....	3
<b>CVTECH-195</b> Echocardiography Clinical Seminar ‡ .....	2
<b>CVTECH-196</b> Echocardiography Clinical Experience 2 ‡ .....	4
<b>CVTECH-197</b> Echocardiography Clinical Experience 3 ‡ .....	4

### CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

^ Counts toward earning the EKG Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350; [caahep.org/Students/Program-Info/Cardiovascular-Technology.aspx](http://caahep.org/Students/Program-Info/Cardiovascular-Technology.aspx). Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

# Cardiovascular Technology – Invasive

PROGRAM CODE: 10-521-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology, chemistry and algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Prepare for a rewarding career as a cardiac catheterization technologist, assisting cardiologists in cardiac catheterization labs with the care of heart patients and performing diagnostic and interventional procedures related to stent placements, pacemaker implants, and other heart or blood vessel conditions. Completing this program fulfills prerequisites to take the Registered Cardiovascular Invasive Specialist (RCIS) exam given by Cardiac Credentialing International (CCI).

## Career Outlook

The continuing demand for invasive cardiac catheterization technologists indicates strong employment opportunities.

## Program Learning Outcomes

- Exhibit patient care skills.
- Model professional behaviors as a CVT.
- Explain diagnostic and/or interventional procedures.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ ^ .....	4
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
<b>CVTECH-102</b> Introduction to CVT ‡ ^ .....	2
<b>CVTECH-110</b> EKG Analysis ‡ ^ .....	2
<b>CVTECH-115</b> Essentials of Cardiac Care 1 ‡ ^ .....	4
<b>CVTECH-117</b> Invasive CVT Fundamentals 1 ‡ .....	4
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) Any 200-level ENG or SPEECH course	
<b>CVTECH-120</b> CVT Clinical Procedures ‡ .....	2
<b>CVTECH-132</b> Physics of Medicine ‡ .....	3
<b>CVTECH-134</b> Hemodynamics ‡ .....	3
<b>CVTECH-135</b> Essentials of Cardiac Care 2 ‡ .....	4
<b>CVTECH-137</b> Invasive CVT Fundamentals 2 ‡ .....	4
<b>CVTECH-138</b> Invasive CVT Clinical 1 ‡ .....	4
<b>CVTECH-122</b> Peripheral Vascular Essentials ‡ .....	3
<b>CVTECH-133</b> Cardiovascular Pharmacology ‡ .....	3
<b>CVTECH-185</b> Invasive CVT Clinical Seminar ‡ .....	2
<b>CVTECH-188</b> Invasive CVT Clinical 2 ‡ .....	3
<b>CVTECH-189</b> Invasive CVT Clinical 3 ‡ .....	3

## CREDITS

Total credits needed to complete this degree

**62**

‡ Prerequisite required.

^ Counts toward earning the EKG Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350; [caahep.org/Students/Program-Info/Cardiovascular-Technology.aspx](http://caahep.org/Students/Program-Info/Cardiovascular-Technology.aspx). Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).



# Community Health and Nutrition Navigator

PROGRAM CODE: 10-539-3



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

A community health and nutrition navigator is a frontline public health worker who, as a trusted member of the community, serves as a liaison to connect people to medical providers and community resources for health and nutrition needs.

## Career Outlook

The world of healthcare today is complex and there is a need for frontline health workers with expertise and experience in assisting individuals and communities to navigate the healthcare system and encourage self-care advocacy.

## Program Learning Outcomes

- Provide information and refer patients, based on the identified barriers and needs, to appropriate resources and services available to the patient.
- Communicate effectively with the healthcare team, diverse patient populations and their families to achieve common health and nutrition goals.
- Apply foundational health and nutrition knowledge to ensure safe, competent, and effective services.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSES	CREDITS
<b>BIOSCI-189</b> Basic Anatomy .....	3
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>HEALTH-101</b> Medical Terminology ^ .....	3
<b>HEALTH-104</b> Contemporary Healthcare Practices ^ .....	2
<b>HEALTH-110</b> Basic Nutrition for Health Professionals .....	1
<b>HEALTH-112</b> Introduction to Public Health .....	3
<b>CHNN-202</b> Healthcare Delivery ‡ .....	3
<b>DIETNT-102</b> Public Health Nutrition ‡ .....	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡ .....	3
(or) SPEECH-201 Elements of Speech	
<b>HEALTH-107</b> Digital Literacy for Healthcare ^ .....	2
<b>HIT-182</b> Human Disease for the Health Professions ‡ .....	3
<b>CHNN-203</b> Prevention and Community Health ‡ .....	3
<b>DIETNT-155</b> Community Nutrition ‡ .....	3
<b>DIETNT-156</b> Nutrition in the Life Cycle ‡ .....	2
<b>DIETNT-170</b> Nutritional Counseling Skills ‡ .....	2
<b>MATH-189</b> Introductory Statistics .....	3
(or) MATH-260 Basic Statistics ‡	
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
<b>CHNN-206</b> Experiential Practice 1 .....	2
<b>CHNN-207</b> Experiential Practice 2 .....	3
<b>ELECTIVES</b> (Two credits) .....	2
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>SOCSCI-166</b> Introduction to Ethics: Theory and Application .....	3
(or) Any 200-level SOCSCI course	
<b>SOCSCI-172</b> Introduction to Diversity Studies .....	3
(or) Any 200-level SOCSCI course	

## CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Dental Assistant

PROGRAM CODE: 30-508-2



Technical Diploma



COURSES	CREDITS
<b>DENAST-302</b> Dental Chairside .....	5
<b>DENAST-304</b> Dental and General Anatomy .....	2
<b>DENAST-305</b> Applied Dental Radiography..... (or) DENHYG-103 Dental Radiography	2
<b>DENAST-306</b> Dental Assistant – Clinical .....	3
<b>DENAST-307</b> Dental Assistant Professionalism .....	1
<b>DENHYG-101</b> Dental Health Safety.....	1
<b>DENHYG-113</b> Dental Materials .....	2

### CREDITS

Total credits needed to complete this diploma

# 16

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** One year of high school-level biology or chemistry is recommended.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

Bilingual (Spanish) program (30-508-2.L) also is offered. The start date is August only and is an open enrollment program; it does not require petitioning.

### Program Description

This program prepares students to perform a variety of patient care responsibilities while under the direction and supervision of a dentist during the examination and treatment of patients. Coursework includes academic and clinical competencies, and students will have clinical experience in a dental practice. Students have the option of completing the program in one or two semesters.

### Career Outlook

Employment opportunities for trained dental assistants are plentiful in private offices, hospitals and clinic settings.

### Program Learning Outcomes

- Perform a variety of entry-level supportive dental procedures.
- Manage infection and hazard control.
- Produce diagnostic images.



### Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

For more career information, visit the Dental Assisting National Board, [danb.org](http://danb.org), or the American Dental Assistants Association website, [adaausa.org](http://adaausa.org).

# Dental Hygiene

PROGRAM CODE: 10-508-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology and chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

As a dental hygienist, help patients maintain their oral health. Working under a dentist's supervision, dental hygienists perform such duties as teeth cleaning, fluoride treatments, X-ray processing and dental health counseling. You will gain clinical experience in MATC's dental hygiene clinic and at external sites. Graduates are eligible to complete the National Board of Dental Hygiene examination, and state or regional practical examinations.

## Career Outlook

Employment prospects for licensed dental hygienists are good. Positions may be found in private dental offices, nursing homes and school settings.

## Program Learning Outcomes

- Model dental hygiene professional code of ethics.
- Counsel clients/patients to reduce health risks.
- Provide community care oral health services in a variety of settings.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>DENHYG-101</b> Dental Health Safety ‡.....	1
<b>DENHYG-102</b> Oral Anatomy, Embryology and Histology ‡.....	4
<b>DENHYG-103</b> Dental Radiography ‡.....	2
<b>DENHYG-105</b> Dental Hygiene Process 1 ‡.....	4
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>BIOSCI-197</b> Microbiology ‡.....	4
<b>CHEM-186</b> Introductory Biochemistry ‡.....	4
(or) CHEM-207 General Chemistry ‡	
and CHEM-208 Survey of Biochemistry ‡	
<b>DENHYG-106</b> Dental Hygiene Process 2 ‡.....	4
<b>DENHYG-107</b> Dental Hygiene Ethics and Professionalism ‡.....	1
<b>DENHYG-108</b> Periodontology ‡.....	3
<b>DENHYG-109</b> Cariology ‡.....	1
<b>DENHYG-110</b> Nutrition and Dental Health ‡.....	2
<b>DENHYG-111</b> General and Oral Pathology ‡.....	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>DENHYG-112</b> Dental Hygiene Process 3 ‡.....	5
<b>DENHYG-113</b> Dental Materials ‡.....	2
<b>DENHYG-114</b> Dental Pharmacology ‡.....	2
<b>DENHYG-115</b> Community Dental Health ‡.....	2
<b>DENHYG-118</b> Dental Anxiety and Pain Management ‡.....	2
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>DENHYG-117</b> Dental Hygiene Process 4 ‡.....	4
<b>ELECTIVE</b> (One credit).....	1
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level HIST or SOCSCI course	

## CREDITS

Total credits needed to complete this degree

**67**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. Commission on Dental Accreditation, 211 East Chicago Avenue, Suite 1900, Chicago, IL 60611; 800-232-6180; [ada.org/coda](http://ada.org/coda).

# Diagnostic Medical Sonography

PROGRAM CODE: 10-526-2



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** June

**Admission Requirement:** This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

As a graduate of the Diagnostic Medical Sonography program, you can choose to work in a variety of healthcare settings, including clinics, hospitals, private practice physician offices, and public health facilities and laboratories. You perform routine sonographic (ultrasound) examinations of the body to include the abdomen, small parts, obstetrics and gynecology. You work closely with physicians and may assist in the performance of invasive procedures. This program will transfer to numerous four-year colleges and universities.

## Career Outlook

The high demand for diagnostic medical sonographers indicates strong employment opportunities.

## Program Learning Outcomes

- Provide patient care and education.
- Utilize acoustic physics, Doppler ultrasound principles and ultrasound instrumentation.
- Complete diagnostic sonographic exams.
- Model professional behaviors and ethics.
- Collaborate with members of the healthcare team.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>ENG-195</b> Written Communication.....	3
(or) ENG-201 English 1	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>BIOSCI-177</b> General Anatomy and Physiology.....	4
(or) BIOSCI-201 Anatomy & Physiology	
<b>MATH 107</b> College Mathematics.....	3
(or) Any 200-level MATH course	
<b>PHYS-139</b> Survey of Physics.....	3
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
<b>BIOSCI-179</b> Advanced Anatomy & Physiology.....	4
(or) BIOSCI-202 Anatomy and Physiology 2	
<b>DMS-200</b> Introduction to DMS ‡.....	3
<b>DMS-221</b> Sonography Physics 1 ‡.....	3
<b>DMS-210</b> Cross Sectional Anatomy ‡.....	2
<b>DMS-207</b> Abdominal Sonography ‡.....	4
<b>DMS-208</b> OB/GYN Sonography 1 ‡.....	3
<b>DMS-222</b> Sonography Physics 2 ‡.....	2
<b>DMS-223</b> Vascular Imaging 1 ‡.....	3
<b>DMS-212</b> OB/GYN Sonography 2 ‡.....	3
<b>DMS-203</b> Scanning with Proficiency ‡.....	1
<b>ENG-197</b> Technical Reporting.....	3
(or) Any 200-level ENG course (except ENG-200 or ENG-201) or any 200-level SPEECH	
<b>DMS-209</b> DMS Clinical Experience 1 ‡.....	2
<b>DMS-211</b> Superficial Sonography ‡.....	2
<b>DMS-224</b> Vascular Imaging 2 ‡.....	3
<b>DMS-220</b> DMS Clinical Experience 2 ‡.....	5
<b>DMS-225</b> DMS Clinical Experience 3 ‡.....	3
<b>DMS-229</b> DMS Clinical Experience 4 ‡.....	2
<b>DMS-217</b> Registry Review ‡.....	2

## CREDITS

Total credits needed to complete this degree

**69**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Dietary Manager

PROGRAM CODE: 61-313-1



Certificate



COURSES	CREDITS
<b>DIETNT-106</b> Food Service Sanitation ‡.....	2
(or) CULMGT-112 Food Service Sanitation	
<b>DIETNT-108</b> Food Service Management 1 ‡.....	3
<b>DIETNT-118</b> Food Service Management 1:Coordinated Practice ‡.....	1
<b>DIETNT-151</b> Nutrition for Dietetics ‡ .....	4

### CREDITS

Total credits needed to complete this certificate

# 10

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is approved by:

Association of Nutrition & Foodservice Professionals (ANFP),  
P.O. Box 3610, St. Charles, IL 60174  
800-323-1908; [anfponline.org](http://anfponline.org).

**Location:** West Allis Campus

**Start Date:** June

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

**Bilingual (Spanish) mode also is offered.**

Students enrolled in the Nutrition and Dietetic Technician associate degree program will complete all of this certificate's required courses as part of their program. Students have the opportunity to learn about safe food handling, meal planning, menu management and supervision. Students are eligible for ANFP Pre-Professional membership and upon successful completion of the program, graduates are eligible for the ANFP professional membership. A Registered Dietitian Nutritionist directly supervises a minimum of 25 of the 30 nutrition-related field experience hours and coordinates the entire 150 hours: 150 hours of precepted field experience overseen by a Registered Dietitian.

Upon completion of this certificate, students are eligible to take the nationally recognized CDM Credentialing Exam offered by the Certifying Board for Dietary Managers. These professionals work in a variety of healthcare and institutional food settings.

Some certificates can be earned while completing associate degrees and/ or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



### Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

# EKG Technician

PROGRAM CODE: 61-521-1



Certificate



COURSES		CREDITS
<b>BIOSCI-177</b>	General Anatomy and Physiology ‡.....	4
<b>CVTECH-102</b>	Introduction to CVT ‡.....	2
<b>CVTECH-110</b>	EKG Analysis ‡ .....	2
<b>CVTECH-115</b>	Essentials of Cardiac Care 1 ‡.....	4

## CREDITS

Total credits needed to complete this certificate

# 12

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus

**Start Dates:** January and August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology, chemistry and algebra (grade C or higher)

**Financial Aid Eligible:** No

### Program Description

Learn the anatomy, physiology and pathology of the heart, and develop the skills needed to complete and interpret electrocardiograms (EKGs). This program prepares you to take the Certified Cardiographics Technician examination, leading to a Certified Cardiographics Technician (CCT) credential as administered by Cardiac Credentialing International (CCI).

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

# Enhanced Yoga Instructor

PROGRAM CODE: 30-546-1



Technical Diploma



COURSES	CREDITS
EYI-101	History and Foundation of Yoga ..... 1
EYI-110	Functional Movement ..... 3
EYI-120	Asana, Sequencing and Structure ..... 2
EYI-130	Mindfulness and Meditation ..... 2
EYI-140	Business Ethics in Yoga ..... 1
EYI-220	Anatomical Variations ..... 3
EYI-230	Teaching Methodology ..... 2
EYI-210	Energetics and Subtle Body ..... 2
EYI-240	Adaptive Yoga ..... 1
ENG-340	Workplace Communication ..... 2 (or) ENG-195 Written Communication ‡

**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

## Program Description

The program goal is to educate Enhanced Yoga Instructor students beyond the role of teaching public classes — to elevate them to trusted wellness practitioners/partners within the healthcare community with enhanced skills in working with special populations, injury prevention and mindfulness for a holistic approach to wellness for individuals and communities. Combines 200-hour and 300-hour training to create a 500-hour program. Teachers with 200-hours may complete 300 hours to become a 500-hour teacher.

## Career Outlook

The number of Americans practicing yoga for wellness has increased, and more physicians are suggesting patients do yoga for healing benefits.

## Program Learning Outcomes

- Create and lead classes for individuals or groups that promote holistic health through movement and mindfulness.
- Apply foundational knowledge to adapt to the specific needs of their students, working with disease processes, injuries or special needs.
- Communicate and partner with other healthcare professionals as part of an interdisciplinary team to provide cohesive patient care.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

## CREDITS

Total credits needed to complete this diploma

**19**

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Health Information Technology

PROGRAM CODE: 10-530-1



Associate Degree



**Location:** Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** One year of high school-level chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Using the latest technology, health information technicians collect, analyze and report healthcare data. This requires knowledge of diseases, treatments, regulatory issues, computer systems and organizational skills.

## Career Outlook

The U.S. Bureau of Labor and Statistics cites health information technology as a growing occupational area.

## Program Learning Outcomes

- Apply data management principles to ensure the quality of health data.
- Apply coding and reimbursement systems.
- Model professionalism, ethics, self-reflection and patient advocacy.
- Apply informatics and analytics in data use.
- Apply organizational management techniques.
- Apply health law and policy to health information.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-189</b> Basic Anatomy ^.....	3
(or) BIOSCI-177 General Anatomy and Physiology ‡	
<b>ENG-195</b> Written Communication ‡ ^.....	3
(or) ENG-201 English 1 ‡	
<b>HEALTH-101</b> Medical Terminology ^.....	3
<b>HEALTH-107</b> Digital Literacy for Healthcare ^.....	2
<b>HIT-182</b> Human Disease for the Health Professions ‡ ^.....	3
<b>HIT-197</b> ICD Diagnosis Coding ‡ ^.....	3
<b>HIT-199</b> ICD Procedure Coding ‡ ^.....	2
<b>ENG-197</b> Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>HEALTH-104</b> Contemporary Healthcare Practices ^.....	2
<b>HIT-159</b> Healthcare Revenue Management.....	3
<b>HIT-162</b> Foundations of HIM ‡ ^.....	3
<b>HIT-165</b> Intermediate Coding ‡ ^.....	3
<b>HIT-184</b> CPT Coding ‡ ^.....	3
<b>HIT-163</b> Healthcare Stats and Analytics ‡.....	3
<b>HIT-164</b> Introduction to Health Informatics ‡.....	3
<b>HIT-178</b> Healthcare Law and Ethics ‡.....	2
<b>MATH-189</b> Introductory Statistics.....	3
(or) MATH-260 Basic Statistics	
<b>PSYCH-188</b> Developmental Psychology.....	3
(or) Any 200-level PSYCH course	
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
<b>HIT-161</b> Health Quality Management ‡.....	3
<b>HIT-166</b> HIT Capstone ‡.....	1
<b>HIT-167</b> Management of HIM Resources ‡.....	3
<b>HIT-196</b> Professional Practice ‡.....	3

## CREDITS

Total credits needed to complete this degree

**63**

‡ Prerequisite required.

^ Counts toward earning the Medical Coding Specialist technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 200 East Randolph Street, Suite 5100, Chicago, IL 60601; 312-235-3255; [cahiim.org](http://cahiim.org).



# Health Unit Coordinator

PROGRAM CODE: 30-510-2



Technical Diploma



COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
<b>HEALTH-101</b> Medical Terminology * ^.....	3
<b>HEALTH-104</b> Contemporary Healthcare Practices* ^ .....	2
<b>HEALTH-107</b> Digital Literacy for Healthcare * ^ .....	2
<b>HSM-130</b> Health Services Coordination 1 ‡.....	3
<b>HSM-131</b> Health Services Coordination 2 ‡.....	3
<b>HSM-132</b> Health Services Applications ‡ .....	3

**CREDITS**

Total credits needed to complete this diploma

**19**

‡ Prerequisite required.

\* Must be taken prior to entering the program.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Online Campus

**Start Dates:** August, January and June

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](https://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

**Program Description**

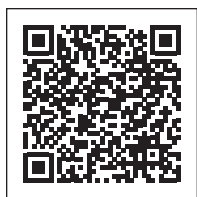
Enter the healthcare field in a non-direct patient care role. This program prepares you for responsibilities such as order transcription, clerical support functions and customer service interactions. Technical courses are offered via online instructional format only.

**Career Outlook**

Health unit coordinators are valued professionals of the healthcare team and the demand for this profession continues to grow. Graduates may be employed in hospitals, long-term care facilities or clinics. For additional career information, visit [nahuc.org](https://nahuc.org).

**Program Learning Outcomes**

- Manage multiple sources of client information.
- Function as an integrated member of the healthcare team.
- Coordinate operational processes.
- Communicate professionally utilizing multiple modalities.
- Process healthcare orders.



**Complete Program Details**

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

# Healthcare Customer Service

PROGRAM CODE: 61-530-1



Certificate



COURSES		CREDITS
<b>HEALTH-101</b>	Medical Terminology .....	<b>3</b>
<b>HEALTH-104</b>	Contemporary Healthcare Practices .....	<b>2</b>
<b>HEALTH-107</b>	Digital Literacy for Healthcare .....	<b>2</b>

CREDITS	<b>7</b>
Total credits needed to complete this certificate	

Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

- Location:** All Campuses, Online Campus
- Start Dates:** August and January
- Admission Requirement:** High school diploma or equivalent
- Financial Aid Eligible:** No

### Program Description

This certificate includes instruction in medical terminology, healthcare computing and the customer service skills related to working in a healthcare setting. Students earning this certificate will be prepared for entry-level customer service positions in the healthcare industry.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



### Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

# Healthcare Services Management

PROGRAM CODE: 10-530-3



Associate Degree



**Location:** Online Campus

**Start Dates:** August, January and June

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology and chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Demonstrate leadership skills, manage support staff and ensure efficient healthcare organizational workflows according to prescribed quality standards with the abilities attained through this program. All courses are offered via online format.

## Career Outlook

This was named the No. 1 in-demand profession in 2019, 2020 and 2021, according to the Wisconsin Technical College System. U.S. Bureau of Labor Statistics projects employment to grow 32% from 2020 to 2030.

## Program Learning Outcomes

- Employ healthcare quality management techniques to encourage safe and efficient patient care.
- Describe knowledge of healthcare systems management.
- Utilize oral, written and nonverbal communication skills in an organized and coherent manner.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-189</b> Basic Anatomy ..... 3 (or) BIOSCI-177 General Anatomy and Physiology ‡ (or) BIOSCI-201 Anatomy and Physiology 1 ‡	3
<b>ECON-195</b> Economics..... 3 (or) Any 200-level ECON course	3
<b>ENG-195</b> Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡	3
<b>HEALTH-101</b> Medical Terminology ^ ..... 3	3
<b>HEALTH-104</b> Contemporary Healthcare Practices ^..... 2	2
<b>HEALTH-107</b> Digital Literacy for Healthcare ^..... 2	2
<b>HSM-130</b> Health Services Coordination 1 ‡ ^ ..... 3 (or) CLABT-110 Basic Lab Skills ‡ and CLABT-111 Phlebotomy ‡	3
<b>HSM-131</b> Health Services Coordination 2 ‡ ^ ..... 3 (or) MLABT-161 Computer Applications for the Medical Laboratory ‡ and Two Credits of Electives	3
<b>HSM-132</b> Health Services Applications ‡ ^ ..... 3 (or) MLABT-166 Phlebotomy Clinical Experience ‡	3
<b>HSM-145</b> Healthcare Law, Ethics and Professional Standards ‡ .... 3	3
<b>MATH-189</b> Introductory Statistics ‡ ..... 3 (or) MATH-260 Basic Statistics ‡	3
<b>ACCTG-126</b> Accounting for Managers ..... 3	3
<b>ENG-197</b> Technical Reporting ‡..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>HSM-129</b> Human Resources Management in HCOs ‡ ..... 3	3
<b>HSM-139</b> Bioethics, Human Research Practices and Compliance ‡.. 4	4
<b>HSM-144</b> Introduction to the Business of Healthcare ‡ ..... 3	3
<b>MKTG-102</b> Marketing Principles ..... 3	3
<b>HSM-143</b> Healthcare Quality Management ‡..... 3	3
<b>HSM-146</b> Leadership in Healthcare Organizations ‡..... 4	4
<b>PSYCH-199</b> Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course	3
<b>SOCSCI-197</b> Contemporary American Society ..... 3 (or) Any 200-level HIST or SOCSCI course	3

## CREDITS

Total credits needed to complete this degree

**63**

‡ Prerequisite required.

^ Counts toward earning the Health Unit Coordinator technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Integrative Health

PROGRAM CODE: 10-546-4



Associate Degree



**Location:** Downtown Milwaukee Campus, MATC Education Center at Walker's Square, Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Integrative health approaches are typically defined as the coordinated use of conventional and complementary therapies. The term integrative implies that the various approaches are not just used in parallel to one another, but are employed in an organized fashion to optimize the benefits for clients/patients. Graduates will be qualified for certification in the following fields: health coaching (IH-105 and IH-218), personal training (IH-203 and IH-235) and RYT-200 yoga teacher (EYI-100, EYI-130, EYI-120 and EYI-140).

## Career Outlook

According to the U.S. Bureau of Labor Statistics, employment of healthcare occupations is projected to grow 15% from 2019 to 2029. With stats like that, there are plenty of career opportunities for those interested in integrative health.

## Program Learning Outcomes

- Articulate Integrative Health treatment modalities with health promotion and prevention of illness as key wellness strategies.
- Employ holistic mind-body-spirit wellness coaching strategies to implement behavior modification and lifestyle change in clients.
- Perform health and wellness assessments, including fitness testing, body composition assessment, diet analysis and health risk assessments, and assess personal fitness levels and prescribe exercise intervention plans.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
IH-102	Introduction to Integrative Health ..... 3
IH-108	Natural Wellness Concepts..... 3
EYI-101	History and Foundation of Yoga ..... 1
EYI-130	Mindfulness and Meditation ..... 2
BIOSCI-189	Basic Anatomy ..... 3 (or) Any 200-level BIOSCI course
ENG-195	Written Communication ‡..... 3 (or) ENG-201 ‡
IH-112	Nutrition for Health/Wellness..... 3
IH-203	Theory and Practice of Fitness ..... 3
IH-105	Introduction to Wellness Coaching..... 3
IH-201	Introduction to Eastern Medicine ..... 1
SOCSCI-172	Introduction to Diversity Studies..... 3 (or) Any 200-level SOCSCI course
ENG-196	Oral/Interpersonal Comm ‡..... 3 (or) Any 200-level ENG or SPEECH course
IH-218	Health Coaching and Interviewing ..... 3
IH-208	Advanced Wellness..... 3
HEALTH-112	Introduction to Public Health..... 3
EYI-120	Asana, Sequencing and Structure ..... 2
EYI-140	Business Ethics in Yoga ..... 1
PSYCH-199	Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course
IH-235	Fitness Testing and Prescription..... 2
IH-225	Healthy Aging ..... 2
IH-215	Population Health and Wellness..... 2
IH-113	Wellness Marketing and Technology..... 3
ELECTIVES	6 credits required from any 100-, 200- or 300-level in any subject..... 6

## CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).



# LPN to ADN Progression

PROGRAM CODE: 10-543-1.22.P



Associate Degree



**Location:** Downtown Milwaukee Campus, Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** Must hold a current Wisconsin Practical Nurse License. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

This program is designed for licensed practical nurses (LPNs) seeking to advance their careers by earning an associate degree in Nursing. Through a combination of classroom instruction, hands-on lab experiences and clinical practice, students build on their existing knowledge and skills to prepare for the role of a registered nurse. Graduates are eligible to sit for the NCLEX-RN exam.

## Program Learning Outcomes

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing standards.
- Communicate comprehensive information using multiple sources in nursing practice.
- Integrate theoretical knowledge to support decision-making.
- Integrate nursing process into patient care across diverse populations.
- Function as a healthcare team member to provide safe and effective care.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡	3
<b>PSYCH-198</b> Introduction to Psychology ..... 3 (or) PSYCH-231 Introductory Psychology	3
<b>PSYCH-188</b> Developmental Psychology ..... 3 (or) PSYCH-238 Lifespan Psychology	3
<b>SOCSCI-172</b> Introduction to Diversity Studies ..... 3 (or) SOCSCI-203 Introduction to Sociology (or) Any 200-level SOCSCI or HIST course	3
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ ..... 4 (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
<b>BIOSCI-197</b> Microbiology ‡ ..... 4	4
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>BIOSCI-179</b> Advanced Anatomy and Physiology ‡ ..... 4 (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
<b>NRSAD-109</b> Nursing Complex Health Alterations 1 ‡ ..... 3	3
<b>NRSAD-110</b> Mental Health Community Concepts ‡ ..... 2	2
<b>NRSAD-191</b> Nursing Clinical Skill Development ‡ ..... 2	2
<b>NRSAD-111</b> Nursing Intermediate Clinical Practice ‡ ..... 3	3
<b>NRSAD-112</b> Nursing Advanced Skills ‡ ..... 1	1
<b>NRSAD-113</b> Nursing Complex Health Alterations 2 ‡ ..... 3	3
<b>NRSAD-114</b> Nursing Management and Professional Concepts ‡ ..... 2	2
<b>NRSAD-115</b> Nursing Advanced Clinical Practice ‡ ..... 3	3
<b>NRSAD-116</b> Nursing Clinical Transition ‡ ..... 2	2

## CREDITS

Total credits needed to complete this degree

**48**

Note: Licensure as LPN required for this program.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



This program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000; [acenursing.org](http://acenursing.org).

# Medical Assistant

PROGRAM CODE: 31-509-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** Biology coursework recommended

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

The Medical Assistant program prepares individuals to assist physicians in their offices or other medical settings. Medical assistants perform a wide range of duties. The medical assistant is responsible for medical and surgical asepsis, taking vital signs, assisting the physician with examinations and surgery, administering ECGs, and administering medications.

## Career Outlook

The demand for Certified Medical Assistants continues to grow. Graduates perform various functions such as drawing blood, administering EKGs and carrying out lab procedures.

## Program Learning Outcomes

- Perform medical office administrative functions.
- Provide patient care in accordance with regulations, policies, laws and patient rights.
- Perform medical laboratory procedures.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>HEALTH-101</b> Medical Terminology *	3
<b>HEALTH-107</b> Digital Literacy for Healthcare *	2
<b>MEDAST-301</b> Medical Assistant Administrative Procedures ‡	2
<b>MEDAST-302</b> Human Body in Health and Disease ‡	3
<b>MEDAST-303</b> Medical Assistant Lab Procedures 1 ‡	2
<b>MEDAST-304</b> Medical Assistant Clinical Procedures 1 ‡	4
<b>MEDAST-309</b> Medical Law, Ethics and Professionalism	2
<b>ENG-195</b> Written Communication ‡ (or) ENG-201 English 1 ‡	3
<b>MEDAST-305</b> Medical Assistant Laboratory Procedures 2 ‡	2
<b>MEDAST-306</b> Medical Assistant Clinical Procedures 2 ‡	3
<b>MEDAST-307</b> Medical Office Insurance and Finance ‡	2
<b>MEDAST-308</b> Pharmacology for Allied Health ‡	2
<b>MEDAST-310</b> Medical Assistant Practicum ‡	3

## CREDITS

Total credits needed to complete this diploma

# 33

‡ Prerequisite required.

\* May be taken prior to entering the program.

All MEDAST courses must be completed within 18 months of starting technical courses in the program.

Program curriculum requirements are subject to change.

The Medical Assistant program at MATC has a five-year cumulative job placement rate of 87.25% for 2019-23.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

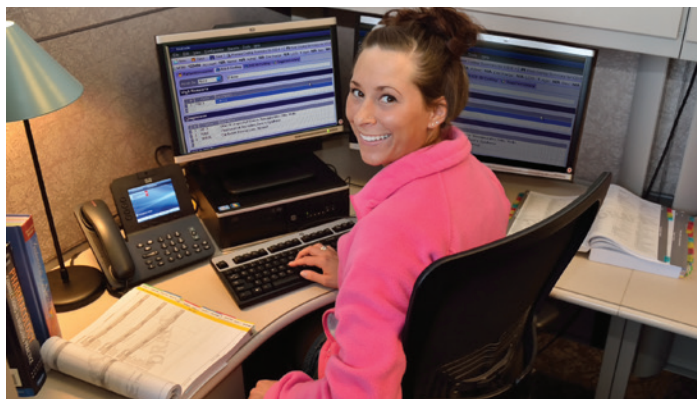
The medical assistant diploma program is accredited by the Commission on Accreditation of Allied Health Education Programs ([caahep.org](http://caahep.org)) upon the recommendation of the Medical Assisting Education Review Board, 2339 N. California Avenue, #47138, Chicago, IL. 60647 [maerb.org](http://maerb.org)

# Medical Coding Specialist

PROGRAM CODE: 31-530-2



Technical Diploma



**Location:** Online Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** One year of high school-level chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

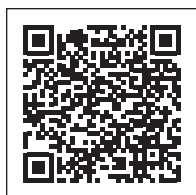
You will be prepared as an entry-level coding specialist after learning medical diagnosis and procedure codes using two coding systems for billing and data collection. Graduates can be certified through the American Health Information Management Association and the American Academy of Professional Coders.

## Career Outlook

Employment opportunities exist in hospitals, clinics and physicians' offices.

## Program Learning Outcomes

- Collect health data.
- Model professional behaviors and ethics.
- Use electronic applications to support coding and data collection.
- Apply coding and reimbursement systems.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-189</b> Basic Anatomy .....	3
(or) BIOSCI-177 General Anatomy and Physiology ‡	
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1	
<b>HEALTH-101</b> Medical Terminology ^ .....	3
<b>HEALTH-107</b> Digital Literacy for Healthcare ^ .....	2
<b>HIT-182</b> Human Disease for the Health Professions ‡ .....	3
<b>HIT-197</b> ICD Diagnosis Coding ‡ .....	3
<b>HIT-199</b> ICD Procedure Coding ‡ .....	2
<b>HEALTH-104</b> Contemporary Healthcare Practices ^ .....	2
<b>HIT-162</b> Foundations of HIM ‡ .....	3
<b>HIT-159</b> Healthcare Revenue Management .....	3
<b>HIT-165</b> Intermediate Coding ‡ .....	3
<b>HIT-184</b> CPT Coding ‡ .....	3

## CREDITS

Total credits needed to complete this diploma

# 33

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Medical Interpreter

PROGRAM CODE: 31-538-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

**This program is for bilingual (English/Spanish) students.**

Interpreters form a vital link in providing better healthcare. This program prepares you for employment to facilitate the communication, in Spanish and English, between patients and medical personnel.

## Career Outlook

The increasing demand for professional medical interpreters can be attributed to the need to provide quality care through effective communication and federal laws requiring language assistive services.

## Program Learning Outcomes

- Interpret bilaterally into English or Spanish in real time.
- Render oral sight translations from English and Spanish texts.
- Translate English and Spanish documents into target language.



**Complete Program Details**

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
MEDINT-102 Spanish Regionalisms and English Variants .....	3
MEDINT-103 Introduction to Medical Interpretation ‡ .....	3
MEDINT-104 Applied Medical Interpretation 1 .....	3
MEDINT-107 Bilingual Medical Terminology .....	5
MEDINT-112 Dual Language Enhancement for Healthcare Providers ‡ ..	3
MEDINT-101 Cultural Awareness .....	3
MEDINT-106 Introduction to Medical Translation.....	3
MEDINT-108 Ethics and Standards for Medical Interpreters .....	3
MEDINT-110 Applied Medical Interpretation 2 ‡ .....	3
MEDINT-111 Applied Medical Interpretation 3 ‡ .....	3
PSYCH-199 Psychology of Human Relations.....	3

## CREDITS

Total credits needed to complete this diploma

# 35

‡ Prerequisite required.

Program curriculum requirements are subject to change.

All credits in this technical diploma must be earned at MATC with a 2.0 GPA or higher.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Medical Laboratory Technician

PROGRAM CODE: 10-513-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level (or one college semester) algebra, biology and chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Begin a rewarding healthcare career as a medical laboratory technician (MLT). Students attend classes four to five days each week; clinical experiences near the program's end are arranged at clinical laboratories. Upon completion of the program, the student is eligible to write national certifying examination.

## Career Outlook

Currently, the job market looks favorable. Opportunities exist in hospitals, clinics, doctors' offices, commercial industries, scientific research and infection control.

## Program Learning Outcomes

- Practice laboratory safety and regulatory compliance.
- Collect and process biological specimens.
- Monitor and evaluate quality control in the laboratory.
- Apply modern clinical methodologies including problem-solving and troubleshooting, according to predetermined criteria.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>CHEM-186</b> Introductory Biochemistry ‡ .....	4
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>BIOSCI-197</b> Microbiology ‡.....	4
<b>CLABT-110</b> Basic Lab Skills .....	1
<b>CLABT-111</b> Phlebotomy ‡ .....	2
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI or HIST course	
<b>CLABT-113</b> QA Lab Math ‡ .....	1
<b>CLABT-114</b> Urinalysis ‡.....	2
<b>CLABT-115</b> Basic Immunology Concepts ‡ .....	2
<b>CLABT-120</b> Basic Hematology ‡.....	3
<b>CLABT-121</b> Coagulation ‡ .....	1
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>CLABT-109</b> Blood Bank ‡.....	4
<b>CLABT-116</b> Clinical Chemistry ‡.....	4
<b>CLABT-170</b> Introduction to Molecular Diagnostics ‡.....	2
<b>CLABT-130</b> Advanced Hematology ‡.....	2
<b>CLABT-133</b> Clinical Microbiology ‡.....	4
<b>CLABT-140</b> Advanced Microbiology ‡ .....	2
<b>CLABT-151</b> Clinical Experience 1 ‡.....	3
<b>CLABT-143</b> Seminar ‡.....	1
<b>CLABT-152</b> Clinical Experience 2 ‡.....	4

## CREDITS

Total credits needed to complete this degree

**62**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

The clinical experiences near the program's end are arranged at clinical laboratories. Service work cannot be substituted for the clinical experiences. Service work by students is non-compulsory outside of class hours. Students attending clinical cannot be used as staff replacement. Upon acceptance to the program and at the start of clinical, a formal faculty-led orientation will occur with all program students.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018-5119; 773-714-8880; [naacls.org](http://naacls.org).

# Nursing Assistant

PROGRAM CODE: 30-543-1



Technical Diploma



## COURSES

**NRSNA-300** Nursing Assistant ‡ ..... 2

## CREDITS

### CREDITS

Total credits needed to complete this diploma

# 2

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

**Start Dates:** Offered year-round

**Admission Requirements:** High school diploma or equivalent is recommended. Health requirements, criminal background check and additional documents are required for admission. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](https://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** No

### Program Description

**Bilingual (Spanish) mode also is offered.**

To become an entry-level bedside caregiver, you will learn basic nursing skills and procedures to assist others with their activities of daily living and specialized care needs. This program can fulfill the Nursing Assistant training requirement for admission into MATC's nursing programs. High school students may be eligible for dual enrollment to earn college credits while in high school and have the opportunity for employment.

### Career Outlook

Program graduates are prepared to work for nursing homes, hospitals, home-health agencies and private-duty practice settings.

### Program Learning Outcomes

- Communicate effectively with clients, family and co-workers.
- Protect rights of clients.
- Demonstrate ethical and legal responsibilities.
- Work cooperatively in a team environment.
- Provide holistic, safe care to diverse populations.
- Demonstrate reporting and documentation.



### Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

# Nutrition and Dietetic Technician

PROGRAM CODE: 10-313-1



Associate Degree



**Location:** West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Learn how the science of managing food and nutrition helps promote good health. Dietetic technicians typically work as a member of the food service or healthcare team. MATC's program includes supervised clinical and field experiences. Graduates are eligible for student membership in the Academy of Nutrition and Dietetics and will receive the title Nutrition and Dietetic Technician Registered (NDTR) after successfully completing the national registration exam.

## Career Outlook

Dietetics is a vital, growing field. A dietetic technician typically works as a member of the food service or healthcare team.

## Program Learning Outcomes

- Integrate scientific information and translate research into practice.
- Practice beliefs, values, attitudes and behaviors for the professional nutrition and dietetics technician level of practice.
- Develop information, products and services for individuals, groups and populations.
- Deliver information, products and services to individuals, groups and populations.
- Demonstrate skills, strengths, knowledge and experience relevant to leadership potential and professional growth for nutrition and dietetics practitioners.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>DIETNT-106</b> Food Service Sanitation ‡ ^ .....	2
<b>DIETNT-109</b> Food Science ‡.....	3
<b>DIETNT-123</b> Dietetic Technician Orientation ‡ .....	1
<b>DIETNT-151</b> Nutrition for Dietetics ‡ ^ .....	4
<b>DIETNT-160</b> Medical Terminology for the Dietetic Technician ‡ .....	1
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>DIETNT-108</b> Food Service Management 1 ‡ ^ .....	3
<b>DIETNT-118</b> Food Service Management 1: Coordinated Practice ‡ ^.....	1
<b>DIETNT-124</b> Medical Nutrition Therapy 1 ‡ .....	3
<b>DIETNT-134</b> Medical Nutrition Therapy 1: Coordinated Practice ‡ .....	1
<b>DIETNT-152</b> Physiology for Dietetics ‡ .....	3
<b>DIETNT-156</b> Nutrition in the Life Cycle ‡ .....	2
<b>DIETNT-166</b> Nutrition in the Life Cycle: Coordinated Practice ‡ .....	1
<b>MATH-107</b> College Mathematics ‡ .....	3
(or) BIOSCI-220 Introduction to Nutritional Science	
<b>DIETNT-125</b> Medical Nutrition Therapy 2 ‡ .....	4
<b>DIETNT-135</b> Medical Nutrition Therapy 2: Coordinated Practice ‡ .....	2
<b>DIETNT-155</b> Community Nutrition ‡ .....	3
<b>DIETNT-157</b> Food Service Management 2 ‡ .....	3
<b>DIETNT-167</b> Food Service Management 2: Coordinated Practice ‡ .....	2
<b>ENG-196</b> Oral/Interpersonal Communication ‡ .....	3
(or) SPEECH-201 Elements of Speech	
<b>DIETNT-136</b> Medical Nutrition Therapy Field Experience ‡ .....	3
<b>DIETNT-146</b> Food and Nutrition Management Field Experience ‡ .....	3
<b>DIETNT-170</b> Nutritional Counseling Skills ‡ .....	2
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) PSYCH-231 Introductory Psychology	
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) SOCSCI-203 Introduction to Sociology	

## CREDITS

Total credits needed to complete this degree

**62**

‡ Prerequisite required.

^ Students completing these courses are eligible to take the Certifying Board for Dietary Managers Certified Dietary Manager examination.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995; 800-877-1600, ext. 5400; <https://www.eatrightpro.org/acend>.

# Occupational Therapy Assistant

PROGRAM CODE: 10-514-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level algebra, biology and chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Use activities to help clients overcome difficulties with daily living, leisure and/or work skills, providing these services under the supervision of an occupational therapist. This program prepares you to become a Certified Occupational Therapy Assistant (COTA).

## Career Outlook

Outlook is good. Placement is usually in hospitals, rehabilitation centers, geriatric centers, schools, homes and community-based settings.

## Program Learning Outcomes

- Practice within the distinct role and responsibility of the occupational therapy assistant.
- Serve a diverse population in a variety of systems that are consistent with entry-level practice.
- Seek out learning opportunities to keep current with best practices.
- Apply occupational therapy principles and intervention tools to achieve expected outcomes.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡ and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>OTASST-171</b> Introduction to Occupational Therapy ‡.....	3
<b>OTASST-172</b> Medical and Psychosocial Conditions ‡ #.....	3
<b>OTASST-173</b> Activity Analysis and Application ‡.....	2
<b>PSYCH-188</b> Developmental Psychology.....	3
(or) PSYCH-238 Lifespan Psychology	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) PSYCH-231 Introductory Psychology	
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level HIST or SOCSCI course	
<b>ENG-197</b> Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>OTASST-174</b> OT Performance Skills ‡.....	4
<b>OTASST-176</b> OT Theory and Practice ‡.....	3
<b>OTASST-178</b> Geriatric Practice ‡.....	3
<b>OTASST-179</b> Community Practice ‡.....	2
<b>OTASST-175</b> Psychosocial Practice ‡.....	3
<b>OTASST-184</b> OTA Fieldwork 1‡.....	2
<b>OTASST-189</b> OT Physical Rehabilitation Practice ‡.....	4
<b>OTASST-190</b> OT Pediatric Practice ‡.....	4
<b>OTASST-185</b> OTA Practice and Management ‡ #.....	2
<b>OTASST-186</b> OTA Fieldwork 2A ‡ *.....	5
<b>OTASST-187</b> OTA Fieldwork 2B ‡ *.....	5

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

# OTASST-172, OTASST-184 and OTASST-185 are online courses.

\* OTASST-186 and OTASST-187 must be completed within 18 months following academic coursework.

OTA program must be completed within four years.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA), 7501 Wisconsin Avenue, Suite 510E, Bethesda, MD 20814; 301-652-AOTA; [acoteonline.org](http://acoteonline.org).

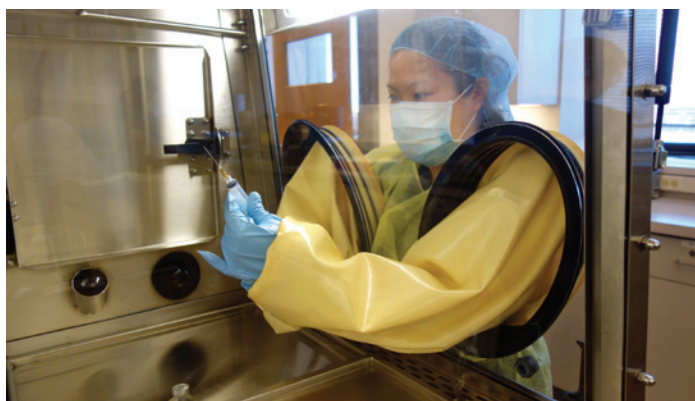


# Pharmacy Technician

PROGRAM CODE: 31-536-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school algebra recommended.

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Gain the skills and knowledge needed to be a pharmacy technician in a variety of practice settings. Pharmacy technicians work under the supervision of a pharmacist. Graduates are prepared to take the Pharmacy Technician Certification Board's Certified Pharmacy Technician exam. All graduates must be 18 years of age or older.

## Career Outlook

Due to the evolving role of the pharmacy technician and the aging population, there is a need for trained pharmacy technicians.

## Program Learning Outcomes

- Demonstrate personal/interpersonal knowledge and skills in the practice of pharmacy.
- Demonstrate foundational professional knowledge and skills for the practice of pharmacy.
- Prepare prescriptions/medication orders and pharmaceutical products for dispensing, distribution and disposal.
- Compound sterile and nonsterile medications.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
ENG-195 Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
HEALTH-101 Medical Terminology ^ .....	3
HEALTH-104 Contemporary Healthcare Practices ^ .....	2
HEALTH-107 Digital Literacy for Healthcare ^ .....	2
PHARMT-300 Orientation to Pharmacy Operations ‡ .....	1
PHARMT-302 Pharmaceutical Calculations ‡ .....	2
PHARMT-303 Introduction to Drug Classification ‡ .....	2
PHARMT-307 Community Pharmacy Lab ‡ .....	1
PHARMT-395 Federal Laws, Ethics and Customer Service ‡ .....	1
PHARMT-306 Pharmacy Clinical Experience 1 ‡ .....	2
PHARMT-310 Institutional Pharmacy Practice ‡ .....	1
PHARMT-312 Pharmacy Operations Laboratory ‡ .....	3
PHARMT-314 Pharmacy Clinical Experience 2 ‡ .....	2
PHARMT-315 Advanced Pharmacy Technician Lab ‡ .....	1
PHARMT-317 Orientation-Sterile Solutions .....	1
PSYCH-199 Psychology of Human Relations .....	3
(or) PSYCH-231 Introductory Psychology 1	

## CREDITS

Total credits needed to complete this diploma

**30**

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the ASHP/ACPE Pharmacy Technician Accreditation Commission, 4500 East-West Highway, Suite 900, Bethesda, MD 20814; 866-279-0681; <https://www.ashp.org/professional-development/technician-program-accreditation>.

# Phlebotomy

PROGRAM CODE: 30-513-1



Technical Diploma



COURSES	CREDITS
<b>CLABT-110</b> Basic Lab Skills ‡ .....	1
<b>CLABT-111</b> Phlebotomy ‡ .....	2
<b>ENG-195</b> Written Communication ‡ * .....	3
(or) ENG-201 English 1 ‡	
<b>HEALTH-101</b> Medical Terminology * ^.....	3
<b>HEALTH-104</b> Contemporary Healthcare Practices ^.....	2
<b>HEALTH-107</b> Digital Literacy for Healthcare * ^ .....	2
<b>MLABT-161</b> Computer Applications for the Medical Laboratory ‡ .....	1
<b>MLABT-166</b> Phlebotomy Clinical Experience ‡ .....	3

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Phlebotomists perform functions such as blood drawing, specimen processing, lab procedures and clerical duties. To prepare for this career, you will learn the theory and practical skills of phlebotomy through the on-campus laboratory sessions and experiences at local healthcare facilities.

### Career Outlook

The demand for phlebotomists continues to grow.

### Program Learning Outcomes

- Adhere to infection control and safe practices.
- Perform specimen collection.
- Process specimens.
- Comply with legal regulations.
- Model professional behaviors.



### Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

### CREDITS

Total credits needed to complete this diploma

# 17

‡ Prerequisite required.

\* May be taken prior to entering the program.

^ Counts toward earning the Healthcare Customer Service certificate

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:  
Phlebotomy Technician.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018-5119; 773-714-8880; [naacls.org](http://naacls.org).

# Physical Therapist Assistant

PROGRAM CODE: 10-524-1



Associate Degree



**Location:** Mequon Campus

**Start Date:** January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level algebra, biology and chemistry or physics

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Work with physical therapy patients in a hospital, rehabilitation center, school, clinic or other healthcare setting. Under the supervision of a physical therapist, duties include implementing treatment programs, teaching patients to perform exercises and daily living activities, and reporting the patient's progress.

## Career Outlook

Employment is projected to grow due to increases in the geriatric population and the increased need for support personnel in this field.

## Program Learning Outcomes

- Function under the direction and supervision of a physical therapist in a safe, legal, ethical manner consistent with professional standards and values to ensure the safety of patients, self and others.
- Demonstrate clear and collaborative communication with patients, families and healthcare team.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 or BIOSCI-202 ‡	
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>PTASST-139</b> PTA Patient Interventions ‡ .....	4
<b>PTASST-140</b> PTA Professional Issues 1 ‡.....	2
<b>PTASST-156</b> PTA Applied Kinesiology 1 ‡.....	4
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>PTASST-142</b> PTA Therapeutic Exercise ‡.....	3
<b>PTASST-143</b> PTA Biophysical Agents ‡.....	4
<b>PTASST-145</b> PTA Principles of Musculoskeletal Rehabilitation ‡.....	4
<b>PTASST-157</b> PTA Applied Kinesiology 2 ‡.....	3
<b>PTASST-144</b> PTA Principles of Neuromuscular Rehabilitation ‡.....	4
<b>PTASST-146</b> PTA Management of Cardiopulmonary and Integumentary Conditions ‡.....	3
<b>PTASST-147</b> PTA Clinical Practice 1 ‡.....	2
<b>PTASST-148</b> PTA Clinical Practice 2 ‡.....	3
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level HIST or SOCSCI course	
<b>MATH-107</b> College Mathematics ‡.....	3
(or) Any 200-level MATH course	
<b>PTASST-149</b> PTA Rehabilitation Across the Lifespan ‡.....	2
<b>PTASST-150</b> PTA Professional Issues 2 ‡.....	2
<b>PTASST-151</b> PTA Clinical Practice 3 ‡.....	5

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), 3030 Potomac Avenue, Suite 100, Alexandria, VA 22305-3085; 800-999-2782; [capteonline.org](http://capteonline.org).

# Practical Nursing

PROGRAM CODE: 31-543-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology and chemistry; high school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

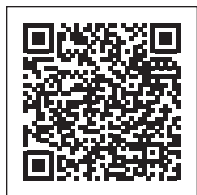
The Practical Nursing program exposes you to a variety of classroom and clinical experiences to prepare you for employment in nursing homes, hospitals and other healthcare settings. Upon program completion, you will be eligible to take the licensure exam for Practical Nurses (NCLEX-PN). Nursing Assistant training is required prior to petitioning for this program. High school students may be eligible for dual enrollment to earn college credits while in high school and have the opportunity for employment.

## Career Outlook

Licensed practical nurses (LPNs) are in high demand in various healthcare settings.

## Program Learning Outcomes

- Integrate Practical Nursing identity reflecting integrity, responsibility and nursing standards.
- Communicate basic information using multiple sources in nursing practice.
- Utilize theoretical knowledge to participate in decision-making.
- Apply the nursing process to basic client care across diverse populations.
- Function as a healthcare team member to provide safe and effective care.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>NRSPN-301</b> Nursing Fundamentals.....	2
<b>NRSPN-302</b> Nursing Skills ‡.....	3
<b>NRSPN-303</b> Nursing: Pharmacology.....	2
<b>NRSPN-304</b> Nursing: Introduction to Clinical Practice ‡.....	2
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>NRSPN-305</b> Nursing: Health Alterations ‡.....	3
<b>NRSPN-306</b> Nursing: Health Promotion ‡.....	3
<b>NRSPN-307</b> Nursing: Clinical Care Across the Lifespan ‡.....	2
<b>NRSPN-308</b> Nursing: Introduction to Clinical Management ‡.....	2
<b>PSYCH-198</b> Introduction to Psychology.....	3
(or) PSYCH-231 Introductory Psychology	
(or) PSYCH-188 Developmental Psychology	
(or) PSYCH-238 Lifespan Psychology	

## CREDITS

Total credits needed to complete this diploma

# 32

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



This program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000; [acenursing.org](http://acenursing.org).



# Radiography

PROGRAM CODE: 10-526-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology, chemistry (or physics), and algebra; high school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Become part of the healthcare team as a radiographer working in medical imaging departments in medical clinics, hospitals and private offices. This is a full-time program with course sequencing that encompasses four semesters, a six-week summer session and six-week externship. Graduates are eligible for certification through American Registry of Radiologic Technologists (ARRT).

## Career Outlook

Career areas include diagnostic radiology, bedside and trauma procedures, pediatric radiography, and special procedures.

## Program Learning Outcomes

- Carry out the production and evaluation of radiographic images.
- Practice radiation safety principles.
- Provide quality patient care.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>RADT-149</b> Radiographic Procedures 1 ‡.....	5
<b>RADT-158</b> Introduction to Radiography ‡.....	3
<b>RADT-159</b> Radiographic Imaging ‡.....	3
<b>RADT-168</b> Radiography Clinical 1 ‡.....	2
<b>ENG-197</b> Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>RADT-191</b> Radiographic Procedures 2 ‡.....	5
<b>RADT-192</b> Radiography Clinical 2 ‡.....	3
<b>RADT-230</b> Advanced Radiographic Imaging.....	2
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>RADT-189</b> Radiographic Pathology ‡.....	1
<b>RADT-193</b> Radiography Clinical 3 ‡.....	3
<b>RADT-194</b> Imaging Equipment Operation.....	3
<b>RADT-199</b> Radiography Clinical 4 ‡.....	3
<b>DMS-210</b> Cross Sectional Anatomy ‡.....	2
<b>RADT-231</b> Imaging Modalities ‡.....	2
<b>RADT-174</b> ARRT Certification Seminar ‡.....	2
<b>RADT-190</b> Radiography Clinical 5 ‡.....	2
<b>RADT-195</b> Radiographic Image Analysis.....	2
<b>RADT-197</b> Radiation Protection and Biology ‡.....	3
<b>RADT-198</b> Radiography Clinical 6 ‡.....	2
<b>SOCSCI-103</b> Think Critically and Creatively .....	3
(or) Any 200-level SOCSCI course	

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182; 312-704-5300; [jrcert.org](http://jrcert.org).

# Registered Nursing

PROGRAM CODE: 10-543-1



Associate Degree



**Location:** Downtown Milwaukee Campus, Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view details.

**Academic Preparedness Requirements:** One year of high school biology and chemistry; high school transcript

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

The ADN program prepares students to become registered nurses (RNs) through a comprehensive curriculum that combines classroom instruction, hands-on lab training, high-fidelity simulation and clinical experience. Graduates are equipped with the knowledge and skills to provide patient-centered care in various healthcare settings and are eligible to take the NCLEX-RN licensure exam.

## Career Outlook

Graduates of the ADN program are well prepared for in-demand roles as registered nurses (RNs) in diverse healthcare settings. Employment opportunities continue to grow, with competitive salaries and career advancement potential in hospitals, clinics, long-term care facilities and community health.

## Program Learning Outcomes

- Integrate professional nursing identity reflecting integrity, responsibility and nursing standards.
- Communicate comprehensive information using multiple sources in nursing practice.
- Integrate theoretical knowledge to support decision-making.
- Integrate the nursing process into patient care across diverse populations.
- Function as a health team member to provide safe and effective care.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡..... 4 (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
<b>ENG-195</b> Written Communication ‡..... 3 (or) ENG-201 English 1 ‡	3
<b>PSYCH-188</b> Developmental Psychology..... 3 (or) PSYCH-238 Lifespan Psychology	3
<b>SOCSCI-172</b> Introduction to Diversity Studies..... 3 (or) SOCSCI-203 Introduction to Sociology	3
<b>BIOSCI-179</b> Advanced Anatomy and Physiology ‡ ..... 4 (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
<b>PSYCH-198</b> Introduction to Psychology ..... 3 (or) PSYCH-231 Introductory Psychology	3
<b>BIOSCI-197</b> Microbiology ‡..... 4	4
<b>ENG-196</b> Oral/Interpersonal Communication ‡..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>NRSAD-101</b> Nursing Fundamentals ‡..... 2	2
<b>NRSAD-102</b> Nursing Skills ‡ ..... 3	3
<b>NRSAD-103</b> Nursing Pharmacology ‡ ..... 2	2
<b>NRSAD-104</b> Nursing: Introduction to Nursing Practice ‡ ..... 2	2
<b>NRSAD-105</b> Nursing Health Alterations ‡..... 3	3
<b>NRSAD-106</b> Nursing Health Promotion ‡..... 3	3
<b>NRSAD-107</b> Nursing: Clinical Care Across the Lifespan ‡ ..... 2	2
<b>NRSAD-108</b> Nursing: Introduction to Clinical Management ‡ ..... 2	2
<b>NRSAD-109</b> Nursing Complex Health Alterations 1 ‡ ..... 3	3
<b>NRSAD-110</b> Mental Health Community Concepts ‡..... 2	2
<b>NRSAD-111</b> Nursing Intermediate Clinical Practice ‡ ..... 3	3
<b>NRSAD-112</b> Nursing Advanced Skills ‡ ..... 1	1
<b>NRSAD-113</b> Nursing Complex Health Alterations 2 ‡ ..... 3	3
<b>NRSAD-114</b> Nursing Management and Professional Concepts ‡..... 2	2
<b>NRSAD-115</b> Nursing Advanced Clinical Practice ‡ ..... 3	3
<b>NRSAD-116</b> Nursing Clinical Transition ‡ ..... 2	2

## CREDITS

Total credits needed to complete this degree

**65**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:  
Nursing Associate Degree.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



This program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000; [acenursing.org](http://acenursing.org).

# Respiratory Therapy

PROGRAM CODE: 10-515-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level biology and chemistry

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Enhance patient care by evaluating and treating people with lung and heart disease. Respiratory therapists' duties include administering treatments, recommending therapeutic interventions and operating life support systems. Graduates are qualified to sit for the National Board for Respiratory Care (NBRC) examinations.

## Career Outlook

Respiratory therapists work in acute and subacute hospitals, diagnostic laboratories, rehabilitation facilities, clinics and home care.

## Program Learning Outcomes

- Apply respiratory therapy concepts to patient care situations.
- Demonstrate technical proficiency required to fulfill the role of a respiratory therapist.
- Practice respiratory therapy according to established professional and ethical standards.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
<b>ELECTIVES</b> (Two credits) .....	2
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>RESPC-111</b> Respiratory Survey ‡.....	3
<b>RESPC-171</b> Respiratory Therapeutics 1 ‡ .....	3
<b>BIOSCI-197</b> Microbiology ‡.....	4
<b>ENG-197</b> Technical Reporting ‡.....	3
<b>RESPC-112</b> Respiratory Airway Management ‡.....	2
<b>RESPC-172</b> Respiratory Therapeutics 2 ‡ .....	3
<b>RESPC-173</b> Respiratory Pharmacology ‡.....	3
<b>RESPC-174</b> Respiratory Cardiac Physiology ‡ .....	3
<b>SOCSCI-172</b> Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
<b>RESPC-175</b> Respiratory Clinical 1 ‡.....	2
<b>RESPC-113</b> Respiratory Life Support ‡.....	3
<b>RESPC-176</b> Respiratory Disease ‡ .....	3
<b>RESPC-178</b> Respiratory Clinical 2 ‡.....	3
<b>RESPC-179</b> Respiratory Clinical 3 ‡.....	3
<b>RESPC-180</b> Respiratory Neonatal and Pediatric Care ‡ .....	2
<b>RESPC-181</b> Respiratory/Cardio Diagnostics ‡ .....	3
<b>RESPC-182</b> Respiratory Clinical 4 ‡.....	3
<b>RESPC-183</b> Respiratory Clinical 5 ‡.....	3

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), 264 Precision Boulevard, Telford, TN 37690; 817-283-2835; [coarc.com](http://coarc.com).

Accreditation is based on recommendation of the Commission on Accreditation for Respiratory Care.



# Surgical Technologist

PROGRAM CODE: 10-512-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** One year of high school-level algebra, biology and chemistry (or college equivalent)

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Surgical technologists work under direct supervision to facilitate safe, effective invasive surgical procedures. You will learn the application of sterile and aseptic technique to help ensure that the operating room environment is safe and equipment functions properly. Graduates are eligible to write the certification examination given by the National Board of Surgical Technology and Surgical Assisting to become a Certified Surgical Technologist.

## Career Outlook

Entry-level positions are available in operating rooms and ambulatory surgery facilities.

## Program Learning Outcomes

- Apply healthcare and technological science principles to the perioperative environment.
- Maintain principles of sterile technique in the surgical environment.



## Complete Program Details

**QUESTIONS?** 414-297-6263, 262-238-2281 or [healthpathway@matc.edu](mailto:healthpathway@matc.edu)

COURSES	CREDITS
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ * ..... 4 (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
<b>BIOSCI-179</b> Advanced Anatomy and Physiology ‡ ..... 4 (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
<b>BIOSCI-197</b> Microbiology ‡..... 4	4
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡	3
<b>PSYCH-199</b> Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course	3
<b>SOCSCI-172</b> Introduction to Diversity Studies..... 3 (or) Any 200-level SOCSCI course	3
<b>HEALTH-101</b> Medical Terminology ..... 3	3
<b>SURGT-125</b> Introduction to Surgical Technology ‡ ..... 4	4
<b>SURGT-126</b> Surgical Tech Fundamentals 1 ‡..... 4	4
<b>SURGT-127</b> Exploring Surgical Issues ‡..... 2	2
<b>SURGT-129</b> Surgical Pharmacology ‡..... 2	2
<b>ENG-197</b> Technical Reporting ‡..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>SURGT-128</b> Surgical Tech Fundamentals 2 ‡..... 4	4
<b>SURGT-130</b> Surgical Skills Application ‡ ..... 2	2
<b>SURGT-132</b> Surgical Tech Clinical 1 ‡ ..... 3	3
<b>SURGT-131</b> Surgical Interventions 1 ‡..... 4	4
<b>SURGT-133</b> Surgical Tech Clinical 2 ‡ ..... 3	3
<b>SURGT-135</b> Surgical Tech Clinical 3 ‡ ..... 3	3
<b>SURGT-142</b> Surgical Interventions 2 ‡..... 4	4
<b>SURGT-136</b> Surgical Tech Clinical 4 ‡ ..... 3	3

## CREDITS

Total credits needed to complete this degree

**65**

‡ Prerequisite required.

\* Taken prior to first-semester courses.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350; [caahep.org/Students/Program-Info/Surgical-Technology.aspx](http://caahep.org/Students/Program-Info/Surgical-Technology.aspx).

Accreditation is based on recommendation of the Accreditation Review Committee on Education in Surgical Technology.



# MANUFACTURING, CONSTRUCTION & TRANSPORTATION

If you are looking to further your education by obtaining a technical diploma or associate degree, or to experience on-the-job training with an apprenticeship, this Pathway will prepare you for career opportunities in the manufacturing, construction or transportation industries. Our convenient campus locations feature state-of-the-art labs and equipment. MATC provides the hands-on, real-world instruction that employers value, giving you the educational experience needed to join the community of certified professionals.

## Pathway Offices

**Downtown Milwaukee Campus**, T Building, Room T200, **414-297-8901**

**Mequon Campus**, Room A108

**Oak Creek Campus**, Room B113

**West Allis Campus**, Room 103

**Education Center at Walker's Square**, Room 205A

[mctpathway@matc.edu](mailto:mctpathway@matc.edu)



Air Conditioning and Refrigeration Technology AD  
Architectural Woodworking/Cabinetmaking TD  
Auto Collision Repair and Finish Technician TD  
Automotive Express Lube Technician C  
Automotive Maintenance Technician TD  
Automotive Technology – Comprehensive AD  
Automotive Technology Maintenance Light Repair TD  
Aviation Maintenance Technician – General Cert (AMT-G) C  
Aviation Technician – Airframe TD  
Aviation Technician - Powerplant TD  
Boiler Operator C  
Bricklaying TD  
Building Automated Systems Technician TD  
Carpentry TD  
CNC Setup and Operations C  
CNC Swiss Multi-Axis Machining TD  
CNC Technician TD  
Dental Technician TD

Diesel and Powertrain Servicing TD  
Electrical Power Distribution TD  
Electricity TD  
Landscape Horticulture AD  
Landscape Horticulture Technician TD  
Machine Tool Operations TD  
Manufacturing Maintenance TD  
Power Engineering and Boiler Operator TD  
Preparatory Plumbing TD  
Refrigeration, Air Conditioning and Heating Service Technician TD  
Technical Studies Apprentice  
Tool and Die Making TD  
Truck Driving TD  
Welding TD  
Welding Fundamentals C  
Welding Technology AD



**AD** Associate Degree program  
**TD** Technical Diploma program  
**C** Certificate program

# Air Conditioning and Refrigeration Technology

PROGRAM CODE: 10-601-1



Associate Degree



**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Ensure comfortable environments in homes and businesses. Students attain a background in mathematics, drafting, electricity and thermodynamics. Co-op credit may be available for appropriate employment opportunities.

## Career Outlook

There is a steady demand for trained air conditioning and refrigeration technicians.

## Program Learning Outcomes

- Install HVAC/R components.
- Service HVAC/R systems.
- Troubleshoot HVAC/R systems.
- Evaluate HVAC/R system designs.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

## COURSES

	<b>CREDITS</b>
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>HVAC2-109</b> Introduction to the HVAC Industry.....	1
<b>HVAC2-110</b> Air Conditioning Fundamentals.....	3
<b>HVAC2-113</b> Electrical Fundamentals.....	3
<b>HVAC2-132</b> Architectural and Mechanical Fundamentals.....	4
<b>ENG-197</b> Technical Reporting ‡.....	3
(or) Any 200-level ENG course	
<b>HVAC2-114</b> Electrical Controls and Systems ‡.....	4
<b>HVAC2-115</b> Refrigeration 1 ‡.....	4
<b>HVAC2-120</b> Heating Systems 1 ‡.....	4
<b>HVAC2-116</b> Refrigeration 2 ‡.....	4
<b>HVAC2-121</b> Heating Systems 2 ‡.....	4
<b>HVAC2-146</b> Digital Energy Management Systems ‡.....	2
<b>HVAC2-148</b> Heat Pumps ‡.....	3
<b>MATH-107</b> College Mathematics ‡.....	3
(or) Any 200-level MATH course	
<b>HVAC2-125</b> Control Application and Circuits ‡.....	4
<b>HVAC2-126</b> Air Conditioning Systems ‡.....	3
<b>HVAC2-144</b> Servicing and Troubleshooting Refrigeration and Air Conditioning ‡.....	3
<b>HVAC2-150</b> Wiring Diagram Interpretation ‡.....	2
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>SOCSCI-197</b> Contemporary American Society.....	3
(or) Any 200-level SOCSCI or HIST course	
<b>ELECTIVE</b> One credit required.....	1

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:  
Air Conditioning, Heating and Refrigeration Technology.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is accredited by HVAC Excellence, P.O. Box 521, Mt. Prospect, IL 60056; 800-726-9696; [escogroup.org/accreditation](https://escogroup.org/accreditation).

# Architectural Woodworking/Cabinetmaking

PROGRAM CODE: 31-409-1



Technical Diploma



**Location:** Oak Creek Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Attain the skills needed to work in cabinet shops, millwork shops, furniture factories, display shops and maintenance shops. The curriculum includes how to read blueprints, make detailed drawings and use machinery.

## Career Outlook

The employment outlook is favorable for workers with current training.

## Program Learning Outcomes

- Read blueprints.
- Set up machinery.
- Operate saws, joiners, planers, shapers, sanders and other woodworking machinery.
- Assemble parts.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

COURSES	CREDITS
<b>CABMIL-300</b> Machine Maintenance/Jigs and Fixtures.....	2
<b>CABMIL-303</b> Woodworking 1 .....	5
<b>CABMIL-304</b> Woodworking Fundamentals .....	3
<b>CABMIL-355</b> Materials and Construction.....	1
<b>CABMIL-385</b> Cabinet Detailing ‡ .....	2
<b>CIVIL-108</b> Construction Computer Applications.....	1
<b>CONSTR-380</b> Mathematics for Construction Trades.....	1
<b>ENG-340</b> Workplace Communication .....	2
(or) ENG-195 Written Communication ‡	
<b>CABMIL-305</b> Woodworking 2 .....	5
<b>CABMIL-306</b> Advanced Woodworking .....	3
<b>CABMIL-383</b> Quantity Survey 1 .....	2
<b>CABMIL-386</b> Cabinet Layout .....	2
<b>MCDESG-120</b> Basic AutoCAD .....	1
<b>CABMIL-353</b> Wood Finishing.....	1

## CREDITS

Total credits needed to complete this diploma

# 31

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Auto Collision Repair and Finish Technician

PROGRAM CODE: 31-405-1



Technical Diploma



**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent recommended. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Get started in an auto repair career. This program prepares you for employment with automobile dealerships, body shops and manufacturing jobs requiring spray painting ability. With instructor's consent, portions of this program may be taken off campus for co-op credit.

## Career Outlook

Employment prospects are good for trained technicians.

## Program Learning Outcomes

- Straighten collision damaged sheet metal.
- Refinish automobile body parts.
- Replace nonstructural panels and parts.
- Perform collision repair welding procedures.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

COURSES	CREDITS
<b>AUTOBY-322</b> Sheet Metal Correction and Fundamentals ‡	4
<b>AUTOBY-301</b> Plastic and Composites Repair ‡	1
<b>AUTOBY-323</b> Estimating and Damage Analysis ‡	1
<b>AUTOBY-325</b> Refinishing 1 and Personal Safety ‡	2
<b>AUTOBY-304</b> Basic Auto Mechanical Systems	1
<b>AUTOBY-326</b> Sheet Metal Correction and Refinishing 2 ‡	4
<b>AUTOBY-312</b> Electrical Servicing for Auto Body Repairing	1
<b>AUTOBY-316</b> Applied Collision Repair 1 ‡	5
<b>AUTOBY-317</b> Frame Measuring and Setup ‡	2
<b>ENG-340</b> Workplace Communication	2
(or) ENG-195 Written Communication ‡	
(or) Any 200-level ENG course	
<b>WELD-340</b> Welding for Auto Body Technicians	2
<b>AUTOBY-313</b> Introduction to Color Match and Aluminum ‡	1
<b>AUTOBY-314</b> Front-End Alignment	1
<b>AUTOBY-315</b> Applied Collision Repair 2 ‡	5

## CREDITS

Total credits needed to complete this diploma

# 32

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Automotive Express Lube Technician

PROGRAM CODE: 61-404-1



Certificate



COURSES	CREDITS
<b>AUTO1-300</b> Express Service.....	2
<b>AUTO1-308</b> Brakes, Steering, Suspension Fundamentals.....	2
<b>AUTO1-310</b> Brakes, Steering, Suspension Lab 1 ‡.....	4
<b>AUTO1-312</b> Brakes, Steering, Suspension Lab 2 ‡.....	2

## CREDITS

Total credits needed to complete this certificate

# 10

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent recommended

**Financial Aid Eligible:** No

### Program Description

Drive your future forward by entering the automotive maintenance field. This certificate covers inspection and maintenance of automotive brakes, steering and suspension components, and it provides instruction on express lube services. The lab courses feature hands-on learning with lab mock-ups and vehicles.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Automotive Maintenance Technician

PROGRAM CODE: 31-404-3



Technical Diploma



COURSES	CREDITS
AUT01-300 Express Service ^ .....	2
AUT01-302 Powertrain Maintenance and Light Repair Fundamentals..	2
AUT01-304 Powertrain Maintenance and Light Repair Lab ‡ .....	4
AUT01-306 Heating and Air Conditioning Fundamentals .....	2
AUT01-308 Brakes, Steering, Suspension Fundamentals ^ .....	2
AUT01-310 Brakes, Steering, Suspension Lab 1 ‡ ^.....	4
AUT01-312 Brakes, Steering, Suspension Lab 2 ‡ ^.....	2
AUT01-314 Electrical and Electronics Fundamentals .....	2
AUT01-316 Electrical and Electronics Lab ‡.....	4
AUT01-318 Auto Instrumentation and Accessories ‡ .....	2
AUT01-322 Engine Control Systems 1 Fundamentals ‡.....	2
AUT01-324 Engine Control Systems 1 Lab ‡.....	4
AUT01-326 Engine Control Systems 2 Fundamentals/Lab ‡ .....	2
ENG-340 Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	

**Location:** Downtown Milwaukee Campus, Oak Creek Campus (primary location)

**Start Dates:** August, October, January and March

**Admission Requirement:** High school diploma or equivalent recommended. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

CREDITS

Total credits needed to complete this diploma

**36**

## Program Description

Expand your employment options by gaining skills to service and repair the many complex systems of automobiles through this program.

## Career Outlook

Job duties may include new car predelivery inspection, wheel alignment, tire balancing, electrical systems, and engine and transmission repair.

## Program Learning Outcomes

- Demonstrate professionalism appropriate for the auto industry.
- Perform maintenance and light repair of automotive steering and suspension systems.
- Perform maintenance and light repair of automotive brake systems.
- Perform maintenance and light repair of automotive electrical and electronic systems.



Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

‡ Prerequisite required.

^ Counts toward earning the Automotive Express Lube Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the ASE Education Foundation, 1503 Edwards Ferry Road NE, Suite 401, Leesburg, VA 20176; 703-669-6650; [aseeducationfoundation.org](http://aseeducationfoundation.org).

# Automotive Technology – Comprehensive

PROGRAM CODE: 10-602-6



Associate Degree



**Location:** Mequon Campus

**Start Dates:** August and October

**Admission Requirements:** High school diploma or equivalent. Dealership sponsor is required to provide applied automotive experience opportunities; program advisors will help locate a sponsor. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Bumper-to-bumper diagnostics, repairs and preventive maintenance will be taught on cars and light trucks. The Automotive Technology programs are: Ford ASSET (Automotive Student Service Educational Training), MOPAR CAP (Career Automotive Program) and CART (Comprehensive Automotive Repair Technology). Manufacturer credentials are earned in ASSET and CAP programs.

## Career Outlook

The demand for trained automotive technicians is high.

## Program Learning Outcomes

- Demonstrate professionalism appropriate for the auto service industry.
- Perform diagnosis, service and repair of automotive internal combustion engines.
- Perform diagnosis, service and repair of automotive automatic transmissions/transaxle systems.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

COURSES	CREDITS
AUTO2-150 Automotive Fundamentals ^.....	2
AUTO2-151 Electrical Systems 1 ‡ ^ .....	4
AUTO2-152 Automotive Climate Control ‡ ^.....	2
AUTO2-154 Fuel Management 1 ‡ ^.....	2
AUTO2-161 Express Service ‡ ^.....	3
AUTO2-164 Applied Automotive Experience 1 ‡ .....	1
ENG-195 Written Communication ‡..... (or) ENG-201 English 1 ‡	3
AUTO2-147 Electrical Systems 2 ‡ ^ .....	2
AUTO2-153 Alignment, Suspension and Steering ‡ ^.....	3
AUTO2-159 Automotive Brakes ‡ ^.....	4
AUTO2-165 Applied Automotive Experience 2 ‡ .....	1
ECON-195 Economics ^..... (or) ECON-219 Personal Finance and Consumer Economics	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
AUTO2-148 Manual Transmissions and Drivelines ‡.....	2
AUTO2-155 Fuel Management 2 ‡.....	4
AUTO2-160 Automotive Accessories ‡ .....	3
AUTO2-166 Applied Automotive Experience 3 ‡ .....	1
GEOSCI-112 Principles of Sustainability..... (or) Any 200-level BIOSCI, CHEM, GEOSCI, PHYS course	3
AUTO2-156 Fuel Management 3 ‡.....	4
AUTO2-157 Engine Concepts ‡.....	4
AUTO2-158 Automotive Transmissions ‡.....	4
AUTO2-167 Applied Automotive Experience 4 ‡ .....	1
ENG-196 Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG course	3

## CREDITS

Total credits needed to complete this degree

**62**

‡ Prerequisite required.

^ Counts toward earning the Automotive Technology Maintenance Light Repair technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the ASE Education Foundation  
1503 Edwards Ferry Road NE, Suite 401  
Leesburg, VA 20176; 703-669-6650  
[aseeducationfoundation.org](http://aseeducationfoundation.org).



Technical Diploma

# Automotive Technology Maintenance Light Repair

PROGRAM CODE: 30-602-4



COURSES	CREDITS
AUTO2-150 Automotive Fundamentals .....	2
AUTO2-151 Electrical Systems 1 ‡ .....	4
AUTO2-161 Express Service ‡ .....	3
ECON-195 Economics .....	3
(or) ECON-219 Personal Finance and Consumer Economics	
AUTO2-147 Electrical Systems 2 ‡ .....	2
AUTO2-152 Automotive Climate Control ‡ .....	2
AUTO2-153 Alignment, Suspension and Steering ‡ .....	3
AUTO2-154 Fuel Management 1 ‡ .....	2
AUTO2-159 Automotive Brakes ‡ .....	4

CREDITS  
Total credits needed to complete this diploma

# 25

**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Get your career started quickly with the skills employers seek for light-duty repair technicians. You will learn to perform basic maintenance and repairs on automotive electrical, brake, steering, suspension and climate control systems.

## Career Outlook

Entry-level technicians are in demand at automotive dealerships and repair garages.

## Program Learning Outcomes

- Demonstrate professionalism appropriate for the auto service industry.
- Perform diagnosis, service and repair of automotive steering and suspension systems.
- Perform diagnosis, service and repair of automotive brake systems.
- Perform diagnosis, service and repair of automotive electrical and electronic systems.
- Perform diagnosis, service and repair of automotive heating and air conditioning systems.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Aviation Maintenance Technician – General (AMT-G Cert.)



Certificate

PROGRAM CODE: 61-486-1



COURSES	CREDITS
<b>AVITEC-323</b> Aircraft Ground Operation and Servicing .....	3
<b>AVITEC-380</b> Basic Physics .....	1
<b>AVITEC-381</b> Basic Electricity.....	3
<b>AVITEC-382</b> Aircraft Materials and Their Inspection.....	3
<b>AVITEC-383</b> Aircraft Maintenance Publications, Records and Mechanics Regulations .....	1
<b>AVITEC-393</b> Mathematics for Aviation Technicians.....	2
<b>ENG-340</b> Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	

### CREDITS

Total credits needed to complete this certificate

# 15

**Location:** FAA-Certified MATC Aviation Center (Oak Creek Campus)

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Complete this certificate certified by the Federal Aviation Administration and you will be prepared for entry-level work as a line service technician assisting certified aircraft mechanics and structural assemblers, or you could work in airfield ground support positions. MATC's Aviation Center is at 422 East College Avenue, east of the Oak Creek Campus.

Some certificates can be earned while completing associate degrees and/ or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

The Aviation Maintenance Technician - General (AMT-G Cert.) is certified by the U.S. Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; 866-835-5322

[faa.gov](http://faa.gov); FAA (Federal Aviation Administration) CFR (Code of Federal Regulations) Part 147 Aviation Maintenance Technician School.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Aviation Technician – Airframe

PROGRAM CODE: 31-486-1



Technical Diploma



## COURSES CREDITS

### GENERAL COMPONENT: AVIATION TECHNICIAN

<b>AVITEC-323</b>	Aircraft Ground Operation and Servicing ^.....	3
<b>AVITEC-380</b>	Basic Physics ^.....	1
<b>AVITEC-381</b>	Basic Electricity ^.....	3
<b>AVITEC-382</b>	Aircraft Materials and Their Inspection ^.....	3
<b>AVITEC-383</b>	Aircraft Maintenance Publications, Records and Mechanics Regulations ^.....	1
<b>AVITEC-393</b>	Mathematics for Aviation Technicians ^.....	2
<b>ENG-340</b>	Workplace Communication ^.....	2
	(or) ENG-195 Written Communication ‡	

**Location:** FAA-Certified MATC Aviation Center (Oak Creek Campus)

**Start Date:** January

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** Completion of the Aviation Technician General Component or instructor approval; background in mathematics and the physical sciences recommended.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Get qualified to maintain aircraft electrical, instrument and power control systems. Program is certified by the Federal Aviation Administration. (A companion program in powerplant maintenance also is offered.) MATC's Aviation Center is at 422 East College Avenue, east of the Oak Creek Campus.

### Career Outlook

Skilled aviation mechanics with versatile knowledge are in demand.

### Program Learning Outcomes

- Read and comprehend aircraft maintenance manuals.
- Pinpoint aircraft malfunctions using schematics and diagnostic equipment.
- Repair airframe structures and return aircrafts to service.



### Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

### CREDITS

Total credits needed to complete this diploma

# 15

### AVIATION TECHNICIAN – AIRFRAME

<b>AVITEC-320</b>	Aircraft Electrical Systems .....	4
<b>AVITEC-340</b>	Aircraft Welding .....	1
<b>AVITEC-367</b>	Aircraft Composite Structures .....	3
<b>AVITEC-368</b>	Aircraft Structures .....	3
<b>AVITEC-370</b>	Aircraft Instrument, Control and Warning Systems 1 .....	5
<b>AVITEC-371</b>	Aircraft Instrument, Control and Warning Systems 2 ‡.....	1
<b>AVITEC-372</b>	Hydraulic and Pneumatic Power Systems.....	4
<b>AVITEC-376</b>	Airframe Maintenance .....	4

### CREDITS

Total credits needed to complete this diploma

# 25

‡ Prerequisite required.

^ Counts toward earning the Aviation Maintenance Technician – General certificate.

Program curriculum requirements are subject to change.

Student must maintain a 2.0 grade-point average in the General Component to be eligible for the Airframe program.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is certified by the U.S. Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; 866-835-5322 [faa.gov](http://faa.gov); FAA (Federal Aviation Administration) CFR (Code of Federal Regulations) Part 147 Aviation Maintenance Technician School.

# Aviation Technician – Powerplant

PROGRAM CODE: 31-486-2



Technical Diploma



## COURSES CREDITS

### GENERAL COMPONENT: AVIATION TECHNICIAN

<b>AVITEC-323</b>	Aircraft Ground Operation and Servicing ^.....	3
<b>AVITEC-380</b>	Basic Physics ^.....	1
<b>AVITEC-381</b>	Basic Electricity ^.....	3
<b>AVITEC-382</b>	Aircraft Materials and Their Inspection ^.....	3
<b>AVITEC-383</b>	Aircraft Maintenance Publications, Records and Mechanics Regulations ^.....	1
<b>AVITEC-393</b>	Mathematics for Aviation Technicians ^.....	2
<b>ENG-340</b>	Workplace Communication ^.....	2
	(or) ENG-195 Written Communication ‡	

**Location:** FAA-Certified MATC Aviation Center (Oak Creek Campus)

**Start Date:** October

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** Completion of the Aviation Technician General Component or instructor approval. Background in mathematics and the physical sciences recommended.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

This specialized, high-demand training program concentrates on aircraft engine and propeller systems. Program is certified by the Federal Aviation Administration. (A companion program in airframe maintenance also is offered.) MATC’s Aviation Center is at 422 East College Avenue, east of the Oak Creek Campus.

### Career Outlook

Aircraft propulsion mechanics remain in high demand.

### Program Learning Outcomes

- Read and comprehend aircraft maintenance manuals.
- Analyze and repair powerplant malfunctions.
- Maintain aircraft powerplant subsystems and determine their airworthiness.



### Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

### CREDITS

Total credits needed to complete this diploma

# 15

### AVIATION TECHNICIAN – POWERPLANT

<b>AVITEC-302</b>	Engine Fuel Metering Systems .....	2
<b>AVITEC-303</b>	Powerplant Electrical and Instrument Systems .....	5
<b>AVITEC-304</b>	Aircraft Induction and Supercharging Systems .....	1
<b>AVITEC-306</b>	Engine Lubricating Systems .....	2
<b>AVITEC-315</b>	Aircraft Reciprocating Engines 1 .....	2
<b>AVITEC-316</b>	Aircraft Reciprocating Engines 2 ‡ .....	4
<b>AVITEC-318</b>	Aircraft Gas Turbine Engines 1 .....	2
<b>AVITEC-319</b>	Aircraft Gas Turbine Engines 2 ‡ .....	5
<b>AVITEC-360</b>	Propeller Systems .....	2

### CREDITS

Total credits needed to complete this diploma

# 25

‡ Prerequisite required.

^ Counts toward earning the Aviation Maintenance Technician – General certificate.

Program curriculum requirements are subject to change.

Student must maintain a 2.0 grade-point average in the General Component to be eligible for the Airframe program.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is certified by the U.S. Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; 866-835-5322 [faa.gov](http://faa.gov); FAA (Federal Aviation Administration) CFR (Code of Federal Regulations) Part 147 Aviation Maintenance Technician School.

# Boiler Operator

PROGRAM CODE: 61-428-1



Certificate



COURSES	CREDITS
<b>POWENG-330</b> Low Pressure Boilers.....	1
<b>POWENG-331</b> High Pressure Boilers .....	2
<b>POWENG-332</b> Boiler Operation.....	1

### CREDITS

Total credits needed to complete this certificate

# 4

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Use your mechanical aptitude and prepare for employment as a boiler operator, facilities maintenance mechanic or power engineer through this certificate's coursework.

At the workplace, job responsibilities typically include regulating equipment; ensuring that equipment operates safely and economically; and monitoring meters, gauges and computerized controls.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



### Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)



# Bricklaying

PROGRAM CODE: 30-408-2



Technical Diploma



COURSES	CREDITS
<b>CIVIL-308</b> Computer Applications for the Trades.....	1
<b>CONSTR-302</b> OSHA Safety/CPR for the Trades ‡ .....	1
<b>CONSTR-380</b> Mathematics for Construction Trades.....	1
<b>ENG-340</b> Workplace Communication..... (or) ENG-195 Written Communication ‡	2
<b>MASON-190</b> Current Topics in Masonry.....	1
<b>MASON-300</b> Fundamental Bricklaying ‡ .....	5
<b>MASON-303</b> Advanced Bricklaying ‡ .....	5
<b>MASON-308</b> Job Safety and Layout ‡.....	1
<b>MASON-356</b> Methods 1 – Fundamentals ‡.....	2

**CREDITS**  
Total credits needed to complete this diploma

# 19

Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** MATC Education Center at Walker's Square  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](https://fafsa.gov).

## Program Description

Designed to prepare you to enter the masonry trade, this program teaches the fundamentals of laying block and brick. The program was developed with the assistance of local tradespeople and contractors. Graduates enter the field as a starting bricklayer. Classes are held at the MATC Education Center at Walker's Square, 816 West National Avenue, Milwaukee.

## Career Outlook

Increased building construction has resulted in a need for bricklayers.

## Program Learning Outcomes

- Lay brick and block.
- Examine residential, commercial and industrial methods of construction.
- Apply required OSHA safety standards in construction work.
- Demonstrate a professional demeanor as it applies to the trade.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Building Automated Systems Technician

PROGRAM CODE: 30-481-1



Technical Diploma



COURSES	CREDITS
<b>BAS-140</b> Building Systems 1 .....	3
<b>BAS-141</b> Building Systems 2 .....	2
<b>BAS-142</b> Measurement and Verification .....	1
<b>BAS-143</b> Electrical Concepts/Control 1 .....	2
<b>BAS-144</b> Control Theory 2 ‡ .....	2
<b>BAS-150</b> Energy Auditing .....	2
<b>BAS-145</b> Control Theory 3 ‡ .....	2
<b>BAS-148</b> Automated Building Control Systems ‡ .....	4
<b>BAS-149</b> Networking Automated Building Systems .....	4
<b>BAS-151</b> Commissioning Automated Building Systems .....	2
<b>BAS-153</b> ABS Capstone Project Course ‡ .....	1

**Location:** Center for Energy Conservation and Advanced Manufacturing (ECAM) at Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Learn about emerging technologies and gain the entry-level skills required for careers as technicians and specialists in building automation and controls. This industry encompasses a broad range of technologies used to efficiently control electrical and mechanical systems in commercial, industrial and institutional buildings. Courses are taught in the Building Automated Systems Lab.

## Career Outlook

In this field, there is potential for advancement, progressing from entry-level installation work to troubleshooting and programming duties to facility management.

## Program Learning Outcomes

- Perform building and energy use assessments.
- Install equipment and materials.
- Service building automation systems.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

## CREDITS

Total credits needed to complete this diploma

# 25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Carpentry

PROGRAM CODE: 31-410-1



Technical Diploma



**Location:** MATC Education Center at Walker's Square, Oak Creek Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

This program prepares you for working on residential and commercial structures. You will learn about reading construction blueprints, the various materials and fasteners used, and the fundamental techniques used in wood-frame construction.

## Career Outlook

As residential and commercial structures continue to be built and remodeled, there is a steady demand for carpenters.

## Program Learning Outcomes

- Use hand and power tools and equipment.
- Apply industry-recognized safety practices and procedures.
- Analyze sustainable building practices.
- Interpret construction drawings.
- Interpret building codes.
- Demonstrate industry building practices and material application.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

COURSES	CREDITS
<b>CABMIL-340</b> Millwork for Carpenters ‡	2
<b>CARP-301</b> House Framing ‡	5
<b>CARP-304</b> House Framing Fundamentals ‡	3
<b>CARP-351</b> Building Materials ‡	1
<b>CARP-385</b> Blueprint Reading 1 ‡	2
<b>CONSTR-302</b> OSHA Safety/CPR for the Trades ‡	1
<b>CONSTR-380</b> Mathematics for Construction Trades	1
<b>ENG-340</b> Workplace Communication (or) ENG-195 Written Communication ‡	2
<b>CABMIL-341</b> Millwork Techniques ‡	2
<b>CARP-303</b> Roof Framing	5
<b>CARP-306</b> Exterior and Interior Finishing ‡	5
<b>CARP-315</b> Energy Efficiency in Residential Construction	1
<b>CARP-383</b> Quantity Survey ‡	2
<b>CARP-387</b> Commercial Blueprint Reading ‡	1

## CREDITS

Total credits needed to complete this diploma

# 33

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

MATC Education Center at Walker's Square is located at 816 West National Avenue, Milwaukee.

# CNC Setup and Operations

PROGRAM CODE: 61-420-3



Certificate



COURSES	CREDITS
<b>MACHTL-309</b> Manual Vertical Milling Machine 1 .....	3
<b>MACHTL-310</b> Manual Vertical Milling Machine 2 ‡ .....	3
<b>MACHTL-360</b> Metrology .....	1
<b>MACHTL-384</b> Machine Trades Mathematics 1 .....	1
<b>MDRAFT-385</b> Machine Blueprint Reading 1 .....	1
<b>MACHTL-304</b> Introduction to CNC Programming ‡ .....	1
<b>MACHTL-322</b> Introduction to CNC Vertical Machining Centers ‡ .....	4
<b>MACHTL-385</b> Machine Trades Mathematics 2 ‡ .....	1
<b>MDRAFT-386</b> Machine Blueprint Reading 2 ‡ .....	1

## CREDITS

Total credits needed to complete this certificate

# 16

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent recommended

**Financial Aid Eligible:** No

### Program Description

This is an accelerated, stand-alone short-term certificate to help students get into the workforce faster in a specific part of the machining field. Workplace opportunities will depend on which machines the student will be able to run based on the training received.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)



# CNC Swiss Multi-Axis Machining

PROGRAM CODE: 31-420-9



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Learn in-demand skills for machine tool operations. Students gain hands-on experience in Computer Numerical Control (CNC) machine setup and operation. CNC machine tool operators with up-to-date experience are in high demand. You can earn the CNC Swiss Multi-Axis Machining technical diploma on the way to completing this program. After earning this diploma, you can apply your credits toward completing the CNC Technician technical diploma.

## Career Outlook

Because of the high volume of manufacturing that takes place in southeastern Wisconsin, CNC machine operators and setup people have marketable skills. Graduates of the program locate positions in which they are expected to set up, operate and interpret the CNC programs of the machine tools. These machines perform a variety of manufacturing processes, such as turning, milling, drilling, threading and contouring.

## Program Learning Outcomes

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

## COURSES

COURSES	CREDITS
<b>MACHTL-347</b> Single Spindle Auto Screw Machine 1.....	3
<b>MACHTL-348</b> Single Spindle Auto Screw Machine 2 ‡.....	3
<b>MACHTL-361</b> Multiple Spindle Auto Screw Machine 1 ‡.....	3
<b>MACHTL-362</b> Multiple Spindle Auto Screw Machine 2 ‡.....	3
<b>MACHTL-360</b> Metrology.....	1
<b>MACHTL-384</b> Machine Trades Math 1.....	1
<b>MDRAFT-385</b> Machine Blueprint Reading 1.....	1
<b>MACHTL-367</b> Machine Tool Technology.....	1
<b>ENG-340</b> Workplace Communication.....	2
(or) <b>ENG-195</b> Written Communication	
<b>MACHTL-371</b> CNC Swiss Turning Center 1.....	4
<b>MACHTL-372</b> CNC Swiss Turning Center 2 ‡.....	4
<b>MACHTL-373</b> CNC Swiss Turning Center 3 ‡.....	4
<b>MACHTL-304</b> Introduction to CNC Programming ‡.....	1
<b>MACHTL-385</b> Machine Trades Math 2 ‡.....	1
<b>MDRAFT-386</b> Machine Blueprint Reading 2 ‡.....	1
<b>MACHTL-391</b> Quality Control ‡.....	1

## CREDITS

Total credits needed to complete this diploma

**34**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Computer Numerical Control (CNC) Technician

PROGRAM CODE: 32-444-1



Technical Diploma



**Location:** Downtown Milwaukee Campus (year one only), Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** Completion of Machine Tool Operations technical diploma program and two years of hands-on CNC machine tool experience

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

MATC's equipment includes industrial-based CNC machining centers and turning centers, and computer-aided design/computer-aided manufacturing (CAD/CAM) workstations. Students gain hands-on experience in all phases of programming and operations.

## Career Outlook

Large and small manufacturers employ CNC machine operators/programmers. Due to the high number of industrial companies in southeastern Wisconsin, there is a need for skilled people.

## Program Learning Outcomes

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform advanced machine tool equipment setup and operation.
- Perform advanced programming, setup and operation of CNC machine tools.
- Perform advanced CNC machining operations.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

COURSES	CREDITS
<b>MACHTL-360</b> Metrology ^ .....	1
<b>MACHTL-367</b> Machine Tool Technology ^ .....	1
<b>MACHTL-384</b> Machine Trades Mathematics 1 ^ .....	1
<b>MDRAFT-385</b> Machine Blueprint Reading 1 ^ .....	1
<b>MACHTL-300</b> Engine Lathe 1 (Turning) ^ .....	3
<b>MACHTL-301</b> Engine Lathe 2 (Turning) ‡ ^ .....	3
<b>MACHTL-309</b> Manual Vertical Milling Machine 1 ^ .....	3
<b>MACHTL-310</b> Manual Vertical Milling Machine 2 ‡ ^ .....	3
<b>ENG-340</b> Workplace Communication ^ .....	2
(or) ENG-195 Written Communication ‡	
<b>MACHTL-304</b> Introduction to CNC Programming ‡ ^ .....	1
<b>MACHTL-385</b> Machine Trades Mathematics 2 ‡ ^ .....	1
<b>MACHTL-391</b> Quality Control ‡ ^ .....	1
<b>MDRAFT-386</b> Machine Blueprint Reading 2 ‡ ^ .....	1
<b>MACHTL-320</b> Introduction to CNC Turning Centers ‡ ^ .....	4
<b>MACHTL-322</b> Introduction to CNC Vertical Machining Centers ‡ ^ .....	4
<b>MACHTL-325</b> Surface Grinding ^ .....	4
<b>MACHTL-386</b> Machine Trades Math 3 ‡ .....	1
<b>CNC-302</b> Computer Application/CNC .....	1
<b>CNC-324</b> CNC Machine Programming/Proveout 1 ‡ .....	3
<b>CNC-325</b> CNC Machine Programming/Proveout 2 ‡ .....	3
<b>CNC-326</b> Machining Center CAD/CAM Programming 1 ‡ .....	3
<b>CNC-327</b> Machining Center CAD/CAM Programming 2 ‡ .....	3
<b>MDRAFT-320</b> Coordinate Blueprint Reading ‡ .....	1
<b>CNC-320</b> Tooling and Fixturing .....	1
<b>CNC-321</b> CNC Machine Technology .....	1
<b>CNC-332</b> CNC Turning Programming/Proveout 1 ‡ .....	3
<b>CNC-333</b> CNC Turning Programming/Proveout 2 ‡ .....	3
<b>CNC-334</b> Turning Center CAD/CAM Programming 1 ‡ .....	3
<b>CNC-335</b> Turning Center CAD/CAM Programming 2 ‡ .....	3
<b>MTLGY-321</b> Metallurgy 1 .....	1

## CREDITS

Total credits needed to complete this diploma

**64**

‡ Prerequisite required.

^ Counts toward earning the Machine Tool Operations technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

This program is accredited by the National Institute for Metalworking Skills, 10565 Fairfax Boulevard, Suite 10, Fairfax, VA 22030; 703-352-4971; <https://www.nims-skills.org/index.php/accreditation>.

# Dental Technician

PROGRAM CODE: 31-507-1



Technical Diploma



COURSES	CREDITS
DLABT-102 Dental Anatomy ‡	5
DLABT-111 Introduction to Complete Dentures ‡	5
DLABT-113 Dental Technology Materials ‡	2
DLABT-114 Principles of Occlusion ‡	1
ENG-195 Written Communication ‡ (or) ENG-201 English 1	3
DLABT-115 CAD/CAM in Dentistry ‡	2
DLABT-117 Dental Technician Professionalism ‡	1
DLABT-121 Introduction to Crown and Bridge ‡	5
DLABT-129 All Ceramic Techniques ‡	5

**Location:** Downtown Milwaukee Campus

**Start Dates:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## CREDITS

Total credits needed to complete this diploma

# 29

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

## Program Description

Develop the knowledge and skills necessary to manufacture dental prostheses, including fixed restorations and complete dentures. The curriculum integrates theoretical study with hands-on dental lab applications. Students train in MATC's fully equipped dental laboratory, gaining practical experience to prepare for careers in the dental industry.

## Career Outlook

The increasing demand for aesthetic dentistry, along with an aging population and expanding workforce, continues to create strong employment opportunities for skilled dental technicians.

## Program Learning Outcomes

- Relate concepts of oral anatomy, morphology and occlusion to dental laboratory procedures.
- Perform laboratory techniques and procedures for dentures.
- Assume the role of the dental laboratory technician as a member of the dental healthcare team.
- Observe infection control and environmental safety procedures.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Diesel and Powertrain Servicing

PROGRAM CODE: 31-412-3



Technical Diploma



COURSES	CREDITS
<b>DIESEL-301</b> Diesel Fuel Systems ‡ .....	2
<b>DIESEL-306</b> Engine Construction and Installation ‡ .....	5
<b>DIESEL-307</b> Electrical/Electronics Shop ‡ .....	5
<b>DIESEL-308</b> CNG Engine Operations for Heavy-Duty Applications ‡ ...	1
<b>DIESEL-338</b> Emission Control Systems ‡ .....	2
<b>DIESEL-319</b> Driveline Components ‡ .....	5
<b>DIESEL-333</b> Heavy Truck HVAC Systems ‡ .....	2
<b>DIESEL-341</b> Front-End, Brake and Suspension Systems ‡ .....	5
<b>DIESEL-345</b> Preventative Maintenance ‡ .....	2
<b>ENG-340</b> Workplace Communication .....	2
(or) <b>ENG-195</b> Written Communication ‡ .....	
<b>WELD-305</b> Fundamentals of Oxyfuel Welding .....	1

CREDITS  
Total credits needed to complete this diploma **32**

**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent recommended

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

This program prepares you for servicing equipment powered by diesel or natural gas fueled engines, such as construction equipment and marine applications, with emphasis on the heavy truck field.

### Career Outlook

There is steady demand for truck and heavy equipment mechanics in the transportation and construction equipment industries.

### Program Learning Outcomes

- Demonstrate preventive maintenance skills relative to checking, lubricating and making necessary adjustments and minor repairs.
- Apply skills in specialized test equipment and machine tools.
- Demonstrate accuracy in identifying component parts and assemblies.
- Apply skills in troubleshooting and repairing engines, drive components and electrical components.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by the ASE Education Foundation, 1503 Edwards Ferry Road NE, Suite 401, Leesburg, VA 20176; 703-669-6650; [aseeducationfoundation.org](http://aseeducationfoundation.org).



# Electrical Power Distribution/Line Mechanic

PROGRAM CODE: 31-413-2



Technical Diploma



COURSES	CREDITS
<b>ELECTY-318</b> Electrical Power Distribution 1A ‡.....	5
<b>ELECTY-319</b> Electrical Power Distribution 1B ‡.....	4
<b>ELECTY-320</b> Electrical Principles and Applied Math 1 ‡.....	4
<b>ELECTY-321</b> Line Mechanic Rescue and Safety ‡.....	2
<b>ELECTY-322</b> Electrical Power Distribution 2A ‡.....	5
<b>ELECTY-323</b> Electrical Power Distribution 2B ‡.....	4
<b>ELECTY-324</b> Electrical Principles and Applied Math 2 ‡.....	4
<b>ENG-340</b> Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	

**CREDITS**

Total credits needed to complete this diploma

**30**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

We Energies Metro North is located at 3100 West North Avenue, Milwaukee, WI 53208

**Location:** Mequon Campus, We Energies Metro North

**Start Date:** August

**Admission Requirements:** High school diploma or equivalent, ability to drive and a valid driver's license. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High-school level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

**Program Description**

This program prepares students for entry-level electrical line worker positions in industry. Although completion of this program does not substitute for an electrical apprenticeship, it does offer the basic knowledge needed to begin working for some electrical utilities, contractors and in related trades.

**Career Outlook**

Some graduates use the program's training as a step toward apprenticeship. Other positions available to graduates include electrical line worker and electrician cable installer.

**Program Learning Outcomes**

- Apply electrical theory.
- Construct overhead electrical distribution systems.
- Disassemble overhead electrical distribution systems.
- Construct underground electrical distribution systems.
- Disassemble underground electrical distribution systems.
- Construct overhead electrical transmission system.
- Disassemble overhead electrical transmission system.
- Maintain electrical systems.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Electricity

PROGRAM CODE: 31-413-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent, ability to drive and a valid driver's license. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Learn skills needed for entry-level electrician positions in industry and the building trades. This program does not substitute for an electrical apprenticeship, but it does offer the basic knowledge needed to begin working for some electrical contractors.

## Career Outlook

Some graduates use the training as a step toward an electrician apprenticeship.

## Program Learning Outcomes

- Apply electrical theory.
- Install electrical equipment in a residential setting.
- Install electrical equipment in a commercial setting.
- Analyze industrial equipment.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

COURSES	CREDITS
<b>ELECTY-308</b> Basic Skills for Electrical Wiring ‡	2
<b>ELECTY-310</b> Cable Wiring ‡	2
<b>ELECTY-312</b> Electrical Raceway Installation ‡	2
<b>ELECTY-340</b> Electrical Code Fundamentals 1 ‡	2
<b>ELECTY-378</b> Construction Blueprint Reading ‡	1
<b>ELECTY-392</b> Principles of Electricity	5
(or) <b>ELECTY-390</b> Principles of Electricity 1 and <b>ELECTY-391</b> Principles of Electricity 2	
<b>ELECTY-314</b> Electrical Service Installation ‡	1
<b>ELECTY-328</b> Electric Motor Control Wiring ‡	2
<b>ELECTY-341</b> Electrical Code Fundamentals 2 ‡	1
<b>ELECTY-382</b> Electrical Equipment Circuit Analysis ‡	1
<b>ELECTY-384</b> Electrical Design and Estimating ‡	1
<b>ELECTY-386</b> Solid State Devices ‡	2
<b>ELECTY-394</b> Electrical Apparatus ‡	4
<b>ENG-340</b> Workplace Communication	2
(or) <b>ENG-195</b> Written Communication ‡	

## CREDITS

Total credits needed to complete this diploma

**28**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Landscape Horticulture

PROGRAM CODE: 10-001-4



Associate Degree



**Location:** Mequon Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

For opportunities to work outdoors and use creativity and plant knowledge, check out horticulture/landscape careers. This program emphasizes hands-on learning to prepare students for a career in landscape maintenance, landscape construction, arboriculture, greenhouse production and landscape design.

## Career Outlook

There is a steady demand for arborists, horticulturists, landscape designers and landscapers.

## Program Learning Outcomes

- Analyze growing media.
- Diagnose plant health.
- Communicate as a horticulture professional.
- Apply design principles.
- Provide horticulture maintenance.
- Apply the principles of plant science.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ^ ..... 3 (or) ENG-201 English 1 ‡	3
<b>HORT-111</b> Introduction to Horticulture ^ ..... 3	3
<b>HORT-114</b> Survey of Woody Ornamental Plants ^ ..... 3	3
<b>HORT-116</b> Landscape Equipment ^ ..... 3	3
<b>HORT-125</b> Landscape Maintenance Applications ^ ..... 3	3
<b>HORT-112</b> Horticulture Soils ^ ..... 3	3
<b>HORT-115</b> Plant Pests and Controls ^ ..... 3	3
<b>HORT-122</b> Landscape Design I ^ ..... 3	3
<b>HORT-126</b> Landscape Estimating and Bidding ^ ..... 3	3
<b>HORT-127</b> Arboriculture 1: Tree Care Fundamentals ^ ..... 3	3
<b>ELECTIVES</b> (Three credits)..... 3	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡ ..... 3 (or) Any 200-level ENG course except ENG-200 and ENG-201	3
<b>HORT-119</b> Landscape Construction ..... 3	3
<b>HORT-123</b> Landscape Design II ..... 3 (or) HORT-163 Native Plants - Fall	3
<b>HORT-135</b> Herbaceous Plants ..... 3	3
<b>SOCSCI-197</b> Contemporary American Society ..... 3 (or) Any 200-level SOCSCI or HIST course	3
<b>ELECTIVES</b> (Three credits)..... 3	3
<b>GEOSCI-112</b> Principles of Sustainability..... 3 (or) Any 200-level BIOSCI, CHEM, GEOSCI, PHYS course	3
<b>HORT-130</b> Pesticide Applicator Training ..... 1	1
<b>HORT-152</b> Greenhouse Production - Spring..... 3 (or) HORT-120 Sustainable Construction	3
<b>HORT-153</b> Advanced Woody Plants ..... 3	3
<b>PSYCH-199</b> Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course	3

## CREDITS

Total credits needed to complete this degree

**64**

‡ Prerequisite required.

^ Counts toward earning the Landscape Horticulture Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Landscape Horticulture Technician

PROGRAM CODE: 31-001-5



Technical Diploma



COURSES	CREDITS
ENG-195 Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
HORT-111 Introduction to Horticulture.....	3
HORT-114 Survey of Woody Ornamental Plants.....	3
HORT-116 Landscape Equipment.....	3
HORT-125 Landscape Maintenance Applications.....	3
HORT-112 Horticulture Soils.....	3
HORT-115 Plant Pests and Controls .....	3
HORT-122 Landscape Design I .....	3
HORT-126 Landscape Estimating and Bidding.....	3
HORT-127 Arboriculture 1: Tree Care Fundamentals.....	3

CREDITS  
Total credits needed to complete this diploma

# 30

‡ Prerequisite required.  
 Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online.  
 Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Mequon Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Land an entry-level position that meets your desire to work with plants and the outdoors. This program prepares students for positions such as groundskeepers, landscape construction workers, arborist ground worker or landscape design assistant.

## Career Outlook

Locally, the job growth for entry-level landscaping positions indicates a high demand for skilled workers.

## Program Learning Outcomes

- Analyze growing media.
- Diagnose plant health.
- Communicate as a horticulture professional.
- Apply design principles.
- Provide horticulture maintenance.
- Apply the principles of plant science.



Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)



# Machine Tool Operations

PROGRAM CODE: 31-420-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent  
 Note: Students will need a tablet or mobile device to complete course requirements.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Learn in-demand skills for machine tool operations. Students gain hands-on experience in Computer Numerical Control (CNC) machine setup and operation.

## Career Outlook

CNC machine tool operators with up-to-date experience are in demand.

## Program Learning Outcomes

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform basic machine tool equipment setup and operation.
- Perform programming, setup and operation of CNC Machine Tools.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

COURSES	CREDITS
<b>MACHTL-360</b> Metrology <sup>^</sup> .....	1
<b>MACHTL-367</b> Machine Tool Technology.....	1
<b>MACHTL-384</b> Machine Trades Mathematics 1 <sup>^</sup> .....	1
<b>MDRAFT-385</b> Machine Blueprint Reading 1 <sup>^</sup> .....	1
<b>MACHTL-300</b> Engine Lathe 1 (Turning).....	3
<b>MACHTL-301</b> Engine Lathe 2 (Turning) ‡.....	3
<b>MACHTL-309</b> Manual Vertical Milling Machine 1 <sup>^</sup> .....	3
<b>MACHTL-310</b> Manual Vertical Milling Machine 2 ‡ <sup>^</sup> .....	3
<b>ENG-340</b> Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	
<b>MACHTL-304</b> Introduction to CNC Programming ‡ <sup>^</sup> .....	1
<b>MACHTL-385</b> Machine Trades Mathematics 2 ‡ <sup>^</sup> .....	1
<b>MACHTL-391</b> Quality Control ‡.....	1
<b>MDRAFT-386</b> Machine Blueprint Reading 2 ‡ <sup>^</sup> .....	1
<b>MACHTL-320</b> Introduction to CNC Turning Centers ‡.....	4
<b>MACHTL-322</b> Introduction to CNC Vertical Machining Centers ‡ <sup>^</sup> .....	4
<b>MACHTL-325</b> Surface Grinding .....	4

## CREDITS

Total credits needed to complete this diploma

# 34

‡ Prerequisite required.

<sup>^</sup> Counts toward earning the CNC Setup and Operations certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Manufacturing Maintenance

PROGRAM CODE: 32-462-1



Technical Diploma



**Location:** Downtown Milwaukee Campus, Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Find your future in the manufacturing industry with a role in the fast-growing field of manufacturing maintenance. Through this program, you will gain hands-on, practical experience related to installing, maintaining, diagnosing and repairing equipment used in manufacturing industries, as well as develop the skills for maintaining manufacturing facilities/building systems.

## Career Outlook

There is strong demand for maintenance workers at manufacturing sites.

## Program Learning Outcomes

- Demonstrate safe work procedures.
- Install industrial equipment and systems.
- Maintain industrial equipment and systems.
- Troubleshoot industrial equipment and systems.
- Repair industrial equipment and systems.
- Communicate technical information.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

COURSES	CREDITS
<b>ADVMFG-113</b> Advanced Manufacturing DC/AC Circuits 1 ‡	3
<b>ADVMFG-114</b> Advanced Manufacturing DC/AC Circuits 2 ‡	3
<b>CONSTR-302</b> OSHA Safety/CPR for the Trades ‡	1
<b>HVAC1-300</b> Basic Refrigeration/System Operation	4
<b>HVAC1-325</b> Oil Furnace Service and Maintenance	3
<b>MACHTL-360</b> Metrology	1
<b>QLTYIN-103</b> MSSC Safety	1
<b>QLTYIN-104</b> MSSC Quality	1
<b>ADVMFG-102</b> Advanced Manufacturing Motor Controls ‡	3
<b>ENG-195</b> Written Communication ‡ (or) ENG-201 English 1 ‡	3
<b>HVAC1-301</b> Introduction to Refrigeration Service/Applications ‡	4
<b>HVAC1-326</b> Gas Furnace Servicing and Maintenance ‡	3
<b>MATH-113</b> College Technical Mathematics 1A ‡ (or) MATH-115 College Technical Mathematics 1 ‡	3
<b>MDRAFT-385</b> Machine Blueprint Reading 1	1
<b>QLTYIN-105</b> MSSC Process	1
<b>QLTYIN-106</b> MSSC Maintenance	1
<b>HYDPNU-330</b> Basic Hydraulics/Pneumatics	5
<b>HYDPNU-338</b> Mechanical Systems	4
<b>MFGMNT-352</b> Mechanical Drives 1	2
<b>WELD-300</b> Fundamentals of Arc Welding	1
<b>WELD-301</b> General Arc Welding ‡	2
<b>HYDPNU-336</b> Fluid Power Circuits	4
<b>MACHTL-346</b> Machine Shop for Related Trades	2
<b>MFGMNT-332</b> Rigging and Lifting	2
<b>MFGMNT-353</b> Mechanical Drives 2 ‡	2
<b>MFGMNT-359</b> Mechanical Fabrication	2
<b>WELD-305</b> Fundamentals of Oxyfuel Welding	1

## CREDITS

Total credits needed to complete this diploma

**63**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Power Engineering and Boiler Operator

PROGRAM CODE: 30-428-1



Technical Diploma



COURSES	CREDITS
<b>POWENG-330</b> Low Pressure Boilers ^ .....	1
<b>POWENG-331</b> High Pressure Boilers ^ .....	2
<b>POWENG-332</b> Boiler Operation ^ .....	1
<b>POWENG-334</b> Blueprint Reading for Power Engineering .....	1
<b>POWENG-335</b> Instrumentation and Controls .....	3
<b>POWENG-395</b> Electricity for Power Engineering .....	3
<b>BAS-143</b> Electrical Concepts/Control 1 for ABS .....	2
<b>ENG-340</b> Workplace Communication .....	2
(or) <b>ENG-195</b> Written Communication ‡	
<b>POWENG-333</b> Plant Maintenance and HVAC Basics .....	3
<b>POWENG-336</b> Math for Power Engineers .....	1

**CREDITS**  
Total credits needed to complete this diploma

# 19

‡ Prerequisite required.  
 ^ Counts toward earning the Boiler Operator certificate.  
 Program curriculum requirements are subject to change.  
 All credits must be earned at MATC with 2.0 GPA or higher.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online.  
 Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Oak Creek Campus  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Learn how to manage and repair equipment, maintain facilities, and operate and control low-pressure and high-pressure boilers and auxiliary systems in factories, plants and buildings.

### Career Outlook

Program graduates have potential for employment as building engineers, boiler operators, facilities maintenance mechanics and power engineers.

### Program Learning Outcomes

- Follow industry safety standards.
- Operate power engineering equipment.
- Examine boiler operation effects on the environment.
- Perform water treatment tests.
- Operate building controls.



### Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Preparatory Plumbing

PROGRAM CODE: 31-427-1



Technical Diploma



**Location:** MATC Education Center at Walker's Square

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirements:** Shop practice and drafting learned either in school or employment setting. Ability to drive and possession of a valid driver's license.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

This program prepares students for a plumbing apprenticeship. As a graduate applying for an apprenticeship, you will be able to demonstrate your commitment to the trade and will possess entry-level skills for a plumbing apprenticeship. This program is also for individuals interested in other piping trades. Classes are at the MATC Education Center at Walker's Square, 816 West National Avenue, Milwaukee.

## Career Outlook

There is a strong demand for the services of licensed plumbers.

## Program Learning Outcomes

- Identify various piping materials and fittings.
- Utilize hand tools and power tools related to the trade.
- Follow directions related to the trade.
- Calculate various piping off set dimensions.
- Sketch and read simple plumbing systems drawings.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

COURSES	CREDITS
<b>CIVIL-308</b> Computer Applications for the Trades.....	1
<b>MATH-308</b> Math for Industrial Applications 1 ‡.....	2
<b>PLUMB-300</b> Plumbing Theory 1 .....	3
<b>PLUMB-301</b> Applied Drawing for Plumbers 1 .....	2
<b>PLUMB-302</b> Plumbing and Piping Shop 1 .....	3
<b>PLUMB-308</b> Plumbing and Pipe Joining Process 1 .....	2
<b>CONSTR-302</b> OSHA Safety/CPR for the Trades ‡ .....	1
<b>ENG-340</b> Workplace Communication..... (or) ENG-195 Written Communication ‡	2
<b>MCDESG-120</b> Basic AutoCAD .....	1
<b>PLUMB-304</b> Plumbing Theory 2 ‡ .....	3
<b>PLUMB-305</b> Plumbing and Pipe Joining Process 2 ‡.....	2
<b>PLUMB-306</b> Plumbing and Piping Shop 2 ‡.....	3
<b>PLUMB-309</b> Applied Drawing for Plumbers 2 ‡ .....	2

## CREDITS

Total credits needed to complete this diploma

**27**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Refrigeration, Air Conditioning and Heating Service Technician

PROGRAM CODE: 31-401-1



Technical Diploma



COURSES	CREDITS
<b>ELECTY-398</b> Electrical Circuits and Controls for HVAC/R .....	3
<b>ENG-195</b> Written Communication ‡ .....	3
<b>HVAC1-300</b> Basic Refrigeration and System Operations.....	4
<b>HVAC1-325</b> Oil Furnace Service and Maintenance.....	3
<b>HVAC1-332</b> Math for HVAC Service Technicians .....	2
<b>HVAC1-350</b> Air Conditioning Principles.....	2
<b>ELECTY-396</b> HVAC/R Electrical Systems ‡ .....	2
<b>ELECTY-397</b> Electrical Wiring Methods for Air Conditioning and Refrigeration .....	1
<b>HVAC1-301</b> Introduction to Refrigeration Servicing and Application ‡ .....	4
<b>HVAC1-326</b> Gas Furnace Servicing and Maintenance ‡ .....	3
<b>HVAC2-148</b> Heat Pumps ‡ .....	3

**Location:** Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent recommended. This program admits students through a waiting list process. Visit the program’s webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Academic Preparedness Requirement:** High school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Enter a career that emphasizes working with HVAC/R equipment. You will learn to service and install air conditioning, refrigeration and heating equipment.

### Career Outlook

There is an ongoing need for technicians who have current training in the installing, troubleshooting and repair of HVAC/R unit.

### Program Learning Outcomes

- Install HVAC/R components.
- Service HVAC/R systems.
- Troubleshoot HVAC/R systems.
- Evaluate HVAC/R system designs.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

### CREDITS

Total credits needed to complete this diploma

**30**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course’s delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is accredited by HVAC Excellence

P.O. Box 521, Mt. Prospect, IL 60056

800-726-9696; <https://www.escogroup.org/accreditation/default.aspx>.

# Technical Studies: Apprentice

PROGRAM CODE: 10-499-5



Associate Degree



COURSE	CREDITS
<b>INDVTS-102</b> Career Assessment and Portfolio Development .....	3
<b>ELECTIVES</b> (Three credits) .....	3
<b>ECON-195</b> Economics..... (or) Any 200-level ECON course	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>MATH-107</b> College Mathematics ‡ .....	3
(or) MATH-113 College Technical Mathematics 1A ‡ (or) MATH-123 Math With Business Applications ‡ (or) Any 200-level MATH course	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>APPRENTICESHIP</b> .....	39

**CREDITS**  
Total credits needed to complete this degree **60**

**Location:** All Campuses

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent. Minimum of 400 hours of related apprenticeship instruction in a Wisconsin Technical College System college or other accredited institution. Interview with program coordinator.

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

MATC's Technical Studies: Apprentice associate degree program is for students who have completed apprenticeships registered through the Wisconsin Bureau of Apprenticeship Standards. Advanced standing for this degree is based solely on your apprenticeship experience. Applicants must possess a Wisconsin Certificate of Apprenticeship. You also may be considered if you possess documentation of having served an apprenticeship recognized by the U.S. Department of Labor. With proper documentation, 39 selected credits will be awarded toward the associate degree.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

A minimum of 25% of total program requirements must be earned at MATC.

Official Wisconsin Technical College System program title: Technical Studies: Journey Worker

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

A Wisconsin journey-level certificate from an apprenticeship program that included a minimum of 400 hours of paid, related instruction in a Wisconsin technical college or other accredited institution.



**Complete Program Details**

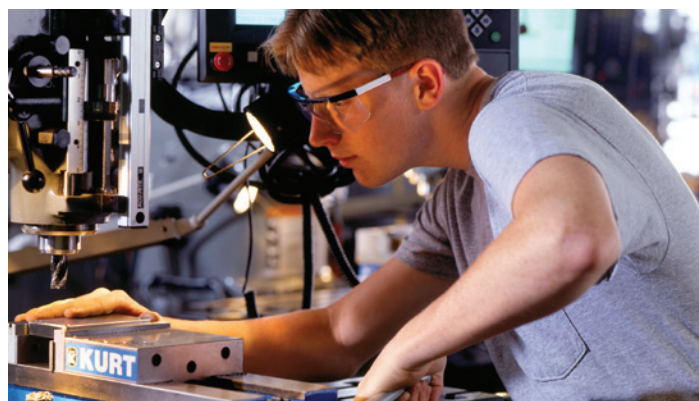
**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Tool and Die Making

PROGRAM CODE: 32-439-1



Technical Diploma



**Location:** Downtown Milwaukee Campus (year one only), Oak Creek Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent recommended

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This is a four-semester, full-time, day program; the first two semesters are common with the one-year Machine Tool Operations program. All courses within the first year are based on the National Institute for Metalworking Skills (NIMS) Machining Level One Skill Standards in nine separate skill areas. During the third and fourth semesters, you will learn how to build and sample basic stamping dies and plastic injection molds.

## Career Outlook

There is an ongoing need for highly skilled tool and die makers and mold makers.

## Program Learning Outcomes

- Apply advanced safety practices in the machine shop.
- Interpret advanced industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform advanced machine tool equipment setup and operation.
- Perform advanced programming, setup and operation of CNC Machine Tools.
- Perform advanced tool, die and mold operations.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

COURSES	CREDITS
<b>MACHTL-300</b> Engine Lathe 1 (Turning).....	3
<b>MACHTL-301</b> Engine Lathe 2 (Turning) ‡.....	3
<b>MACHTL-309</b> Manual Vertical Milling Machining 1 ^.....	3
<b>MACHTL-310</b> Manual Vertical Milling Machining 2 ‡ ^.....	3
<b>MACHTL-360</b> Metrology ^ .....	1
<b>MACHTL-367</b> Machine Tool Technology.....	1
<b>MACHTL-384</b> Machine Trades Mathematics 1 ^ .....	1
<b>MDRAFT-385</b> Machine Blueprint Reading 1 ^ .....	1
<b>ENG-340</b> Workplace Communication.....	2
(or) <b>ENG-195</b> Written Communication ‡	
<b>MACHTL-304</b> Introduction to CNC Programming ‡ ^.....	1
<b>MACHTL-320</b> Introduction to CNC Turning Centers ‡.....	4
<b>MACHTL-322</b> Introduction to CNC Vertical Machining Centers ‡ ^.....	4
<b>MACHTL-325</b> Surface Grinding .....	4
<b>MACHTL-385</b> Machine Trades Mathematics 2 ‡ ^ .....	1
<b>MACHTL-391</b> Quality Control ‡.....	1
<b>MDRAFT-386</b> Machine Blueprint Reading 2 ‡ ^ .....	1
<b>MACHTL-386</b> Machine Trades Mathematics 3 ‡.....	1
<b>MTLGY-301</b> Basic Heat Treatment of Metals.....	1
<b>TDMKG-360</b> Basic Die Making Technology.....	1
<b>TDMKG-366</b> CNC Programming 2 ‡.....	1
<b>TDMKG-371</b> Stamping Die Making 1 ‡.....	4
<b>TDMKG-372</b> Stamping Die Making 2 ‡.....	4
<b>TDMKG-373</b> Stamping Die Making 3 ‡.....	4
<b>MACHTL-387</b> Machine Trades Mathematics 4 ‡.....	1
<b>TDMKG-361</b> Advanced Die Making Technology ‡.....	1
<b>TDMKG-362</b> Cavity Die Technology .....	1
<b>TDMKG-367</b> Basic CAD/CAM ‡.....	1
<b>TDMKG-381</b> Moldmaking 1 ‡.....	4
<b>TDMKG-382</b> Moldmaking 2 ‡.....	4
<b>TDMKG-383</b> Moldmaking 3 ‡.....	4

## CREDITS

Total credits needed to complete this diploma

**66**

‡ Prerequisite required.

^ Counts toward earning the CNC Setup and Operations certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Truck Driving

PROGRAM CODE: 30-458-1



Technical Diploma



COURSES		CREDITS
<b>TRCKDR-345</b>	Truck Driving 1 ‡	5
<b>TRCKDR-346</b>	Truck Driving 2 ‡	5

**CREDITS**  
Total credits needed to complete this diploma

# 10

‡ Prerequisite required.  
 Must be admitted to the Truck Driving (30-458-1) program.  
 Program curriculum requirements are subject to change.  
 Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
 MATC courses are offered in person, entirely online or partially online.  
 Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Oak Creek Campus

**Start Dates:** August, October, January, March, May and June

**Admission Requirements:** High school diploma or equivalent is preferred, age 18 years or older, valid Wisconsin driver's license and acceptable driving record, Department of Transportation medical exam and drug test, and valid Commercial Learners Permit (CLP). For more information, see Wisconsin Commercial Driver's Manual at [wisconsin.gov](http://wisconsin.gov) or at local DMV office. This program admits students through a waiting list process. Visit the program's webpage at [matc.edu](http://matc.edu) to view the waiting list process and all requirements.

**Financial Aid Eligible:** No

## Program Description

As a graduate of this eight-week Truck Driving program, you will enter an industry in need of qualified workers. Developing skills related to safety, maintenance and the operation of trucks prepares you for entry-level positions as a local or over-the-road driver. Students have the opportunity to attain Class A CDL (Commercial Driver's License) as a result of their training.

## Career Outlook

Currently the need for qualified truck drivers remains high in Wisconsin. The demand for truck drivers is expected to continually increase due to the retirement of current drivers and the increased need for freight-carrying services.

## Program Learning Outcomes

- Perform basic truck driving operations.
- Adhere to safe truck driving operating procedures.
- Explain advanced operating practices.
- Explain vehicle systems and reporting malfunctions.
- Comply with non-driving activities.



## Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)



# Welding

PROGRAM CODE: 31-442-1



Technical Diploma



COURSES	CREDITS
WELD-313 Shielded Metal Arc Welding ^	5
WELD-314 Gas Tungsten Arc Welding ^	5
WELD-350 GTAW Processes ^	1
WELD-351 Shielded Metal Arc Welding Processes ^	1
WELD-360 Blueprint Reading for Welders ^	2
WELD-380 Welding Trades Mathematics ^	1
ENG-340 Workplace Communication ^ (or) ENG-195 Written Communication ‡	2
WELD-315 Gas Metal Arc Welding Practices	5
WELD-316 Layout and Setup Practices	5
WELD-352 Gas-Shielded Arc Welding Processes	1
WELD-354 Layout and Print Reading Practices ‡	2

CREDITS  
Total credits needed to complete this diploma **30**

‡ Prerequisite required.  
^ Counts toward earning the Welding Fundamentals certificate.  
Program curriculum requirements are subject to change.  
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.  
MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Mequon Campus, Oak Creek Campus, and the MATC Education Center at Walker's Square  
**Start Dates:** August and January  
**Admission Requirement:** High school diploma or equivalent  
**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Gain the skills to perform production, maintenance and repair welding for manufacturing and construction. Learn about blueprints, equipment maintenance and the various welding processes and settings.

### Career Outlook

Demand is high for welders with up-to-date skills; new processes have created many job opportunities for welders with these abilities.

### Program Learning Outcomes

- Demonstrate industry-recognized safety practices.
- Interpret welding drawings.
- Produce gas metal arc welds (GMAW).
- Produce shielded metal arc welds (SMAW).
- Produce flux cored arc welds (FCAW).
- Produce gas tungsten arc welds (GTAW).
- Perform cutting operations.



### Complete Program Details

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Welding Fundamentals

PROGRAM CODE: 61-442-7



Certificate



COURSES	CREDITS
<b>ENG-340</b> Workplace Communication ..... 2 (or) ENG-195 Written Communication ‡	2
<b>WELD-313</b> Shielded Metal Arc Welding.....	5
<b>WELD-314</b> Gas Tungsten Arc Welding.....	5
<b>WELD-350</b> GTAW Processes .....	1
<b>WELD-351</b> Shielded Metal Arc Welding Processes.....	1
<b>WELD-360</b> Blueprint Reading for Welders .....	2
<b>WELD-380</b> Welding Trades Mathematics.....	1

### CREDITS

Total credits needed to complete this certificate

# 17

**Location:** Oak Creek Campus, Mequon Campus and the Education Center at Walker's Square

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** No

### Program Description

Develop entry-level welding skills in shielded metal arc welding and gas tungsten arc welding. You also will gain fundamental blueprint reading skills and strengthen workplace communication skills.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or [mctpathway@matc.edu](mailto:mctpathway@matc.edu)

# Welding Technology

PROGRAM CODE: 10-621-1



Associate Degree



**Location:** Education Center at Walker's Square

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

**Bilingual (Spanish) mode also is offered.**

## Program Description

This program combines practical, theoretical and technical training in welding fabrication. Advanced courses deal with application of welding codes to develop the expertise needed to become a Certified Associate Welding Inspector or Certified Welding Inspector.

## Career Outlook

Demand is high for welders with current skills. Graduates typically find employment as welding technicians, robotic welding technicians, technical sales reps and weld test conductors.

## Program Learning Outcomes

- Demonstrate industry-recognized safety practices.
- Interpret welding drawings.
- Produce welds to current AWS specifications.
- Manufacture products to specifications.
- Inspect products.
- Operate robotic welding equipment.



**Complete Program Details**

**QUESTIONS?** 414-297-8901 or mctpathway@matc.edu

COURSES	CREDITS
<b>ENG-195</b> Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡	3
<b>MATH-115</b> College Technical Mathematics 1 ‡ ..... 5 (or) MATH-113 College Technical Mathematics 1A‡ and MATH-114 College Technical Mathematics 1B ‡	5
<b>WELDTC-101</b> Welding Theory 1 ..... 2	2
<b>WELDTC-107</b> Fabrication Graphics ..... 3	3
<b>WELDTC-111</b> Welding Practice 1 ..... 4	4
<b>WELDTC-181</b> Welding Technology Orientation ..... 1	1
<b>ENG-197</b> Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course	3
<b>MATH-116</b> College Technical Mathematics 2 ‡ ..... 4	4
<b>WELDTC-102</b> Welding Theory 2 ..... 3	3
<b>WELDTC-105</b> Weldability of Materials ‡ ..... 3	3
<b>WELDTC-112</b> Welding Practice 2 ‡ ..... 4	4
<b>MATRLS-102</b> Material Testing ..... 3	3
<b>SOCSCI-103</b> Think Critically and Creatively ..... 3 (or) Any 200-level HIST or SOCSCI course	3
<b>WELDTC-113</b> Welding Techniques 1 ‡ ..... 3	3
<b>WELDTC-140</b> Manufacturing Applications for Robots ..... 4	4
<b>MATRLS-151</b> Metallurgy and Materials Science ..... 3	3
<b>PSYCH-199</b> Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course	3
<b>WELDTC-114</b> Welding Techniques 2 ‡ ..... 3	3
<b>WELDTC-135</b> Automated Welding Processes ‡ ..... 4	4

## CREDITS

Total credits needed to complete this degree

**61**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:  
Industrial Welding Technician.

Current MATC students should consult their Academic Program Plan  
for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

The certificates, technical diplomas and associate degrees in this Pathway will prepare you for a professional career in your chosen STEM (science, technology, engineering, mathematics) field. According to the U.S. Bureau of Labor Statistics, the projected growth rate for STEM fields through 2026 is 10.8%, with 93 of 100 STEM occupations earning wages above the national average. We welcome you to explore your passion in STEM, experiencing hands-on learning with industry-expert faculty. Our team is excited to guide you in preparing for a successful career!

## Pathway Offices

**Downtown Milwaukee Campus**, Main Building, Room M386, **414-297-6319**

**Mequon Campus**, Room A108

**Oak Creek Campus**, Room A121

**West Allis Campus**, Room 103

[stempathway@matc.edu](mailto:stempathway@matc.edu)



Architectural Technology AD  
Biomedical Electronics Technology AD  
Chemical Technician AD  
Civil Engineering Technology AD  
Computer Electronics Technology AD  
Electronic Engineering Technology AD  
Electronic Engineering Technology AD (BSEE Transfer)  
Electronic Technology – Automation AD  
Electronics Technician Fundamentals TD  
Food Science Technology AD  
IT Computer Support Specialist AD  
IT Computer Support Technician TD  
IT Digital Forensics Analyst TD  
IT Help Desk Support Specialist TD  
IT Information Systems Security Specialist AD

IT Mobile Applications Developer AD  
IT Network Specialist (AI, Cloud and Virtualization) AD  
IT Network Specialist (AI, Cloud and Virtualization)  
– Online Accelerated Cohort AD  
IT Networking and Infrastructure Administration TD  
IT User Support Technician TD  
IT Web and Software Developer AD  
Level 2 – Service Center Technician C  
Mechanical and Computer Drafting  
Mechanical Design Technology AD  
Microsoft Enterprise Desktop Support Specialist C  
Science Processing Technician TD  
Service Center Technician C  
Surveying and Mapping TD



**AD** Associate Degree program  
**TD** Technical Diploma program  
**C** Certificate program

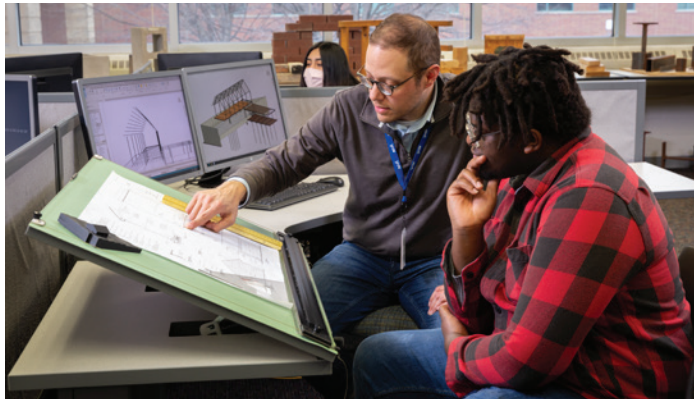


# Architectural Technology

PROGRAM CODE: 10-614-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level algebra and geometry

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This program prepares students for work in fields related to architecture and construction. Students are introduced to architectural design and drafting through sketching techniques and then receive extensive training in computer-aided drafting and Building Information Modeling (BIM) using AutoCAD and Revit BIM software. Construction materials and methods, architectural practices, building codes and mechanical and environmental systems also are studied.

## Career Outlook

Architectural technicians are in demand. They work with architects, engineers, contractors, designers, and building material manufacturers and suppliers.

## Program Learning Outcomes

- Develop construction documents.
- Evaluate building materials.
- Develop building designs.
- Integrate building systems.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>ARCHT-101</b> Architectural Theory and Drawing 1 .....	4
<b>ARCHT-105</b> Architectural History.....	2
<b>ARCHT-110</b> Computer Applications for Architecture .....	2
<b>ARCHT-121</b> Architectural Materials and Methods 1 .....	2
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>MATH-115</b> College Technical Mathematics 1 ‡ .....	5
(or) MATH-201 College Algebra‡	
<b>ARCHT-112</b> Architectural Theory and CADD 2 ‡.....	4
<b>ARCHT-120</b> Structural Systems and Components ‡ .....	3
<b>ARCHT-122</b> Architectural Materials and Methods 2 ‡.....	3
<b>ENG-196</b> Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
<b>MATH-116</b> College Technical Mathematics 2 ‡ .....	4
(or) MATH-202 Trigonometry ‡	
<b>ARCHT-103</b> Architectural Theory and CADD 3 ‡.....	5
<b>ARCHT-131</b> Mechanical and Environmental Systems 1 ‡ .....	2
<b>ELECTIVES</b> (Two credits) .....	2
<b>PHYS-139</b> Survey of Physics .....	3
(or) PHYS-221 College Physics 1 ‡	
<b>PSYCH-199</b> Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
<b>ARCHT-104</b> Architectural Theory and CADD 4 ‡.....	5
<b>ARCHT-107</b> Building Estimating.....	2
<b>ARCHT-132</b> Mechanical and Environmental Systems 2 ‡ .....	2
<b>ARCHT-141</b> Architectural Practices and Procedures ‡.....	2
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level HIST or SOCSCI course	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Biomedical Electronics Technology

PROGRAM CODE: 10-605-6



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent, criminal background check, 10-panel drug test, health exam, immunizations

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Through coursework and lab work focused on electrical safety, medical gas safety and the clinical application of electronics and electromechanical devices, you will prepare for a technical career in the healthcare field.

## Career Outlook

Jobs are competitive in the Milwaukee area. Employment opportunities include hospitals, equipment manufacturers and independent service organizations.

## Program Learning Outcomes

- Manage medical equipment and systems.
- Identify the function and operation of various types of imaging equipment.
- Problem-solve electronic circuits and systems.
- Demonstrate a competency with computers and networks used in medical equipment.
- Apply principles of anatomy, physiology and medical terminology.
- Demonstrate safety precautions and practices with medical equipment.



## Complete Program Details

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>QETECH-200</b> Fundamentals of Engineering .....	3
<b>ELCTEC-110</b> DC/AC Electronics 1 ‡ ^ .....	4
<b>ELCTEC-130</b> Digital Electronics ‡ ^ .....	3
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>MATH-115</b> College Technical Mathematics 1 ‡ ^ .....	5
(or) take MATH-113 College Technical Mathematics 1A and MATH-114 College Technical Mathematics 1B	
<b>BIOSCI-189</b> Basic Anatomy .....	3
<b>ELCTEC-111</b> DC/AC Electronics 2 ‡ ^ .....	3
<b>ELCTEC-120</b> Electronic Devices ‡ ^ .....	4
<b>ELCTEC-186</b> Fabrication Techniques ‡ .....	1
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) Any 200-level ENG or SPEECH course	
<b>MATH-116</b> College Technical Mathematics 2 ‡ .....	4
<b>ELCTEC-134</b> Biomedical Instrumentation ‡ .....	4
<b>ELCTEC-137</b> Biomedical Electronics Technician Practicum 1 ‡ .....	2
<b>ELCTEC-140</b> Microprocessors ‡ ^ .....	3
<b>ELCTEC-150</b> Data Communications and Networking ‡ .....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level HIST or SOCSCI course	
<b>ELCTEC-133</b> Medical Imaging Equipment ‡ .....	4
<b>ELCTEC-138</b> Biomedical Electronics Technician Practicum 2 ‡ .....	2
<b>ELCTEC-139</b> Advanced Biomedical Electronics ‡ .....	3
<b>ELECTIVE</b> (One credit) .....	1
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title: Bio-Medical Electronics.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Chemical Technician

PROGRAM CODE: 10-603-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level chemistry, and advanced algebra or MATH-116 College Technical Mathematics 2

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Chemical technicians assure the quality of the products made in the manufacturing, chemical and allied industries. This program trains you to perform as an analyst or chemist's assistant in various industries.

## Career Outlook

Employment prospects for program graduates are strong, locally and nationally. Most graduates work in labs, in research and development, or in technical assistance.

## Program Learning Outcomes

- Apply knowledge of chemical apparatus, equipment and procedures.
- Work precisely in solution making.
- Communicate and receive precise chemical data and procedures.
- Practice laboratory safety procedures.
- Use software for instrument operation and data handling.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>CHEMT-101</b> Chemical Laboratory/Process Safety ‡ ^	2
<b>CHEMT-103</b> Introduction to Chemical Technology ^	2
<b>CHEMT-111</b> General Chemistry 1 ‡ ^ (or) CHEM-211 Chemistry 1 ‡	5
<b>ENG-195</b> Written Communication ‡ ^ (or) ENG-201 English 1 ‡	3
<b>CHEMT-105</b> Introduction to Instrumental Methods ^	3
<b>CHEMT-112</b> General Chemistry 2 ‡ ^ (or) CHEM-212 Chemistry 2 ‡	5
<b>ENG-197</b> Technical Reporting ‡ ^ (or) Any 200-level ENG or SPEECH course	3
<b>PHYS-139</b> Survey of Physics	3
<b>CHEMT-107</b> Industrial Methods of Analysis ‡	2
<b>CHEMT-116</b> Instrumental Analysis ‡ (or) CHEM-216 Instrumental Analysis ‡	5
<b>CHEMT-117</b> Organic Chemistry 1 ‡ (or) CHEM-217 Organic Chemistry 1 ‡	3
<b>CHEMT-119</b> Organic Chemistry Laboratory 1 ‡ (or) CHEM-219 Organic Chemistry Laboratory 1 ‡	2
<b>ELECTIVES</b> (Two credits)	2
<b>PSYCH-199</b> Psychology of Human Relations (or) Any 200-level PSYCH course	3
<b>CHEMT-109</b> Chemical Processes ‡	3
<b>CHEMT-115</b> Quantitative Analysis ‡ (or) CHEM-215 Quantitative Chemical Analysis ‡	5
<b>CHEMT-118</b> Organic Chemistry 2 ‡ (or) CHEM-218 Organic Chemistry 2 ‡	3
<b>ELECTIVES</b> (Three credits)	3
<b>SOCSCI-197</b> Contemporary American Society (or) Any 200-level SOCSCI or HIST course	3

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

^ Counts toward earning the Science Processing Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Civil Engineering Technology

PROGRAM CODE: 10-607-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Assist civil engineers in planning, designing, scheduling, estimating, surveying and inspecting construction projects. Also, specific elective surveying courses provide an option for a land surveying career.

## Career Outlook

Civil engineering technicians and surveying technicians are needed in all phases of project development.

## Program Learning Outcomes

- Utilize CAD and sketching techniques to produce engineering documents.
- Perform design and routine testing procedures related to construction materials.
- Utilize land surveying instruments to collect data necessary to produce topographic maps, establish horizontal and vertical control, and layout civil engineering projects.
- Operate computer software and hardware to solve technical problems.
- Apply elements of design to roads, subdivision layout, and storm and sanitary sewer systems.



## Complete Program Details

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>CIVIL-101</b> Civil Engineering Drawing ^ .....	2
<b>CIVIL-102</b> Introduction to AutoCAD ^ .....	2
<b>CIVIL-105</b> Computer Applications ^ .....	2
<b>CIVIL-135</b> Public Works Engineering and Estimating .....	3
<b>CIVIL-155</b> Surveying 1 ^ .....	2
<b>MATH-115</b> College Technical Mathematics 1 ‡ ^ .....	5
(or) MATH-201 College Algebra ‡	
<b>CIVIL-106</b> Intermediate AutoCAD ‡ ^ .....	2
<b>CIVIL-147</b> Soils and Materials Testing ‡ .....	3
<b>CIVIL-156</b> Surveying 2 ‡ ^ .....	2
<b>ENG-195</b> Written Communication ‡ ^ .....	3
(or) ENG-201 English 1 ‡	
<b>MATH-116</b> College Technical Mathematics 2 ‡ .....	4
(or) MATH-202 Trigonometry 1 ‡	
<b>CIVIL-110</b> Introduction to Civil 3D ‡ ^ .....	2
<b>CIVIL-141</b> Statics and Strength of Materials ‡ .....	4
<b>CIVIL-157</b> Route and Highway Surveying ‡ ^ .....	3
<b>ELECTIVES</b> (Three credits) .....	3
<b>ENG-197</b> Technical Reporting ‡ .....	3
(or) Any 200-level ENG or SPEECH course	
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	
<b>CIVIL-142</b> Structures ‡ .....	3
<b>CIVIL-148</b> Structural Detailing ‡ .....	3
<b>CIVIL-158</b> Land Surveying ‡ .....	2
<b>CIVIL-170</b> Sewer and Water Systems ‡ .....	3
<b>ELECTIVES</b> (Two credits) .....	2
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI or HIST course	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

^ Counts toward earning the Surveying and Mapping technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is approved through the Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors; Department of Safety and Professional Services, 4822 Madison Yards Way, Madison, WI 53705; 608-266-2112;

<https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>.



# Computer Electronics Technology

PROGRAM CODE: 10-605-3



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

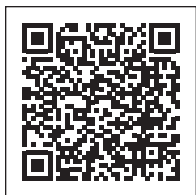
Learn to develop, install, maintain, troubleshoot and repair computers and processors in manufacturing and control systems. Work with edge computers, smart sensors, and networking hardware and software. This program is manufacturing- and hardware-focused compared to IT-related programs.

## Career Outlook

Outlook is strong for computer electronics technicians with skills to perform installation, configuration, upgrading and maintenance of computer and network systems, and who can develop technical software.

## Program Learning Outcomes

- Apply electronic theory to practice.
- Operate test equipment.
- Build electronic circuits and systems.
- Evaluate the operation of electronic circuits or systems.
- Communicate technical information.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>QETECH-200</b> Fundamentals of Engineering .....	3
<b>ELCTEC-110</b> DC/AC Electronics 1 ‡ ^.....	4
<b>ELCTEC-130</b> Digital Electronics ‡ ^.....	3
<b>ENG-195</b> Written Communication ‡..... (or) ENG-201 English 1 ‡	3
<b>MATH-115</b> College Technical Mathematics 1 ‡ ^..... (or) Any 200-level MATH course	5
<b>ELCTEC-111</b> DC/AC Electronics 2 ‡ ^.....	3
<b>ELCTEC-120</b> Electronic Devices ‡ ^.....	4
<b>ELCTEC-140</b> Microprocessors ‡ ^.....	3
<b>ELCTEC-186</b> Fabrication Techniques ‡.....	1
<b>ENG-197</b> Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>MATH-116</b> College Technical Mathematics 2 ‡.....	4
<b>ELCTEC-150</b> Data Communications and Networking ‡.....	3
<b>ELCTEC-173</b> Computing With C ‡.....	3
<b>ELCTEC-174</b> Hardware Systems ‡.....	3
<b>ELCTEC-178</b> Software Systems ‡.....	3
<b>ELCTEC-172</b> Input/Output Programming ‡.....	3
<b>ELCTEC-176</b> Computer Networks ‡.....	3
<b>ELCTEC-179</b> Advanced Computer Systems ‡.....	3
<b>ELECTIVE</b> (One credit).....	1
<b>PSYCH-199</b> Psychology of Human Relations..... (or) PSYCH-231 Introductory Psychology	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) SOCSCI-203 Introduction to Sociology	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

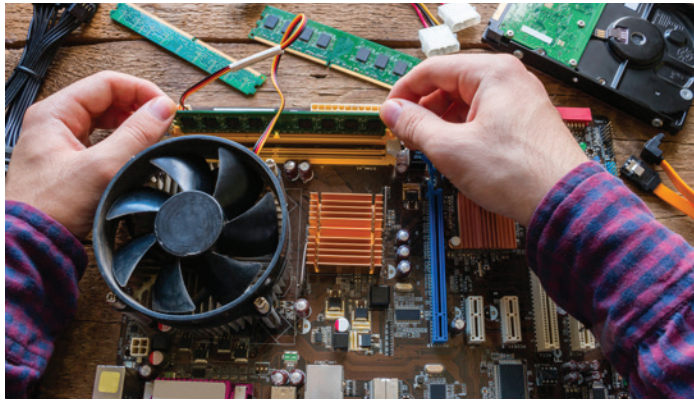
Official Wisconsin Technical College System program title:  
Electronics – Computer.

# Electronic Engineering Technology

PROGRAM CODE: 10-605-7



Associate Degree



**Location:** West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level geometry and algebra, or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Gain the expertise for professional testing/repair positions in the electronics field. If you are interested in continuing your education to pursue a Bachelor of Science Electrical Engineering degree at Milwaukee School of Engineering (MSOE), select the MSOE-BSEE Transfer courses.

## Career Outlook

Technicians assist engineers and producers of electronic equipment and systems and are part of a fast-growing career area.

## Program Learning Outcomes

Apply electronic theory to practice, operate test equipment and build electronic circuits and systems.

‡ Prerequisite required. Program curriculum requirements are subject to change.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

Official WTCS program title: Electronic Systems Technician.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

## COURSES

### JOB READY

	<b>CREDITS</b>
<b>QETECH-200</b> Fundamentals of Engineering.....	3
<b>ELCTEC-110</b> DC/AC Electronics 1 ‡ ^ .....	4
<b>ELCTEC-130</b> Digital Electronics ‡ ^ .....	3
<b>ENG-195</b> Written Communication ‡ (or) ENG-201 ‡ .....	3
<b>MATH-115</b> College Technical Mathematics 1 ‡ ^ .....	5
	(or) MATH-230 ‡ (or) MATH-231 ‡
<b>PSYCH-199</b> Psychology of Human Relations (or) PSYCH-231.....	3
<b>ELCTEC-111</b> DC/AC Electronics 2 ‡ ^ .....	3
<b>ELCTEC-120</b> Electronic Devices ‡ ^ .....	4
<b>ELCTEC-140</b> Microprocessors ‡ ^ .....	3
<b>MATH-116</b> College Technical Mathematics 2 ‡ .....	4
	(or) MATH-231 ‡ (or) MATH-232 ‡
<b>ELCTEC-121</b> Electronic Devices Advanced ‡ .....	3
<b>ELCTEC-150</b> Data Communications and Networking ‡ .....	3
<b>ELCTEC-196</b> PLC Systems Basic ‡ .....	3
<b>ENG-197</b> Technical Reporting ‡ .....	3
	(or) Any 200-level ENG or SPEECH course
<b>ELCTEC-131</b> Advanced Digital Electronics ‡ (or) ELCTEC-198 ‡ .....	3
<b>ELCTEC-141</b> Microcontrollers ‡ .....	3
<b>ELCTEC-176</b> Computer Networks ‡ .....	3
<b>ELCTEC-195</b> Motors and Controls ‡ .....	4
<b>ELECTIVE</b> (One credit) .....	1
<b>SOCSCI-197</b> Contemporary American Society (or) SOCSCI-203.....	3

## CREDITS

Total credits needed to complete this degree

# 64

## MSOE-BSEE TRANSFER\*

<b>QETECH-200</b> Fundamentals of Engineering.....	3
<b>ELCTEC-110</b> DC/AC Electronics 1 ‡ ^ .....	4
<b>ELCTEC-130</b> Digital Electronics ‡ ^ .....	3
<b>ENG-201</b> English 1 ‡ .....	3
<b>PSYCH-231</b> Introductory Psychology.....	3
<b>ELCTEC-111</b> DC/AC Electronics 2 ‡ ^ .....	3
<b>ELCTEC-120</b> Electronic Devices ‡ ^ .....	4
<b>ELCTEC-140</b> Microprocessors ‡ ^ .....	3
<b>SOCSCI-203</b> Introduction to Sociology .....	3
<b>PHYS-274</b> Calculus-Based Physics 1 ‡ .....	4
<b>ELCTEC-105</b> DC/AC 3 Advanced Circuits ‡ .....	3
<b>ELCTEC-121</b> Electronic Devices Advanced ‡ .....	3
<b>ELCTEC-195</b> Motors and Controls ‡ .....	4
<b>ELCTEC-196</b> PLC Systems Basic ‡ .....	3
<b>ENG-208</b> Technical Communications ‡ .....	3
<b>MATH-231</b> Analytic Geometry and Calculus 1 ‡ .....	5
<b>ELCTEC-106</b> Advanced Electronics Analysis ‡ .....	3
<b>ELCTEC-141</b> Microcontrollers ‡ .....	3
<b>ELCTEC-150</b> Data Communications and Networking ‡ .....	3
<b>ELECTIVES</b> (Five credits) .....	5
<b>MATH-232</b> Analytic Geometry and Calculus 2 ‡ .....	5

## CREDITS

Total credits for MSOE-BSEE transfer program

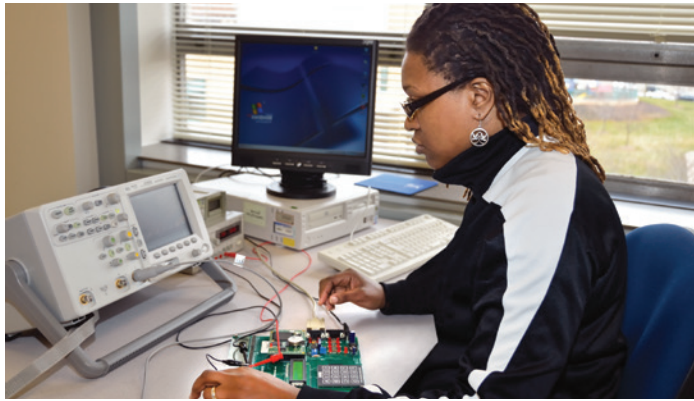
# \*73

# Electronic Technology – Automation

PROGRAM CODE: 10-605-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level geometry and one year of high school-level algebra, or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This program features industry-relevant hands-on labs and is designed to prepare students for a variety of occupations in the field of electronics.

## Career Outlook

Electronic technology is a rapidly changing field, which creates great opportunities. Skills acquired from this program provide a strong foundation to keep pace with the technology.

## Program Learning Outcomes

- Apply electronic theory to practice.
- Operate test equipment.
- Build electronic circuits and systems.
- Evaluate the operation of electronic circuits or systems.
- Communicate technical information.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
QETECH-200 Fundamentals of Engineering .....	3
ELCTEC-110 DC/AC Electronics 1 ‡ ^ .....	4
ELCTEC-130 Digital Electronics ‡ ^ .....	3
ENG-195 Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
MATH-115 College Technical Mathematics 1 ‡ ^ .....	5
ELCTEC-111 DC/AC Electronics 2 ‡ ^ .....	3
ELCTEC-120 Electronic Devices ‡ ^ .....	4
ELCTEC-140 Microprocessors ‡ ^ .....	3
ELCTEC-186 Fabrication Techniques ‡ .....	1
MATH-116 College Technical Mathematics 2 ‡ .....	4
ELCTEC-150 Data Communications and Networking ‡ .....	3
ELCTEC-173 Computing With C ‡ .....	3
ELCTEC-195 Motor Controls ‡ .....	4
ELCTEC-196 PLC Systems Basic ‡ .....	3
ENG-197 Technical Reporting ‡ .....	3
ELCTEC-192 Fluid Power ‡ .....	2
ELCTEC-198 PLC Systems Advanced ‡ .....	3
ELCTEC-199 Automated Systems ‡ .....	3
ELECTIVE (One credit) .....	1
Any 100-, 200- and/or 300-level courses in any subject.	
ELCTEC-100 and ELCTEC-101 are suggested	
PSYCH-199 Psychology of Human Relations .....	3
(or) PSYCH-231 Introductory Psychology	
SOCSCI-197 Contemporary American Society .....	3
(or) SOCSCI-203 Introduction to Sociology	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

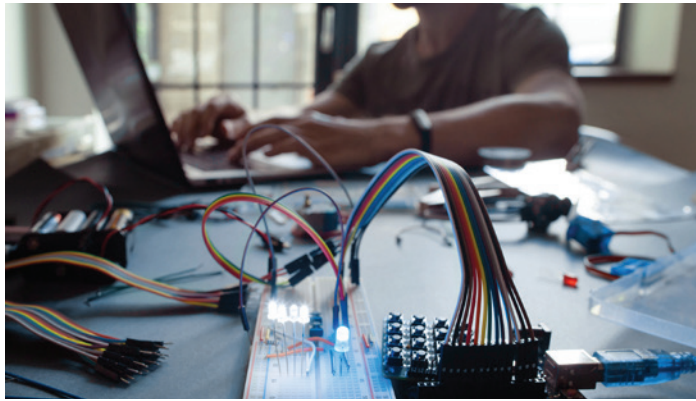
Official Wisconsin Technical College System program title: Electronics.

# Electronics Technician Fundamentals

PROGRAM CODE: 30-605-1



Technical Diploma



COURSES	CREDITS
QETECH-200 Fundamentals of Engineering .....	3
ELCTEC-110 DC/AC Electronics 1 ‡ .....	4
ELCTEC-130 Digital Electronics ‡ .....	3
MATH-115 College Technical Mathematics 1 ‡ .....	5
ELCTEC-111 DC/AC Electronics 2 ‡ .....	3
ELCTEC-120 Electronic Devices ‡ .....	4
ELCTEC-140 Microprocessors ‡ .....	3

## CREDITS

Total credits needed to complete this diploma

# 25

**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level geometry and one year of high school-level algebra, or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

### Program Description

Gain the core competencies of electronics, such as DC/AC principles, digital electronics and microprocessors, through coursework that emphasizes hands-on learning. These skills provide entry-level opportunities for employment or the base knowledge to pursue further education in electronics.

### Career Outlook

Electronics is a rapidly changing field, with jobs in many sectors of industry.

### Program Learning Outcomes

- Apply electronic theory to basic circuits.
- Operate test equipment.
- Install electronic circuits and systems.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Food Science Technology

PROGRAM CODE: 10-623-4



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level chemistry and advanced algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Applying principles of chemistry and biology to ensure that food products are safe and meet quality standards, this program emphasizes the skills required in the food and beverage manufacturing industry, including innovative ways to produce, package, preserve and distribute foods.

## Career Outlook

Employers include manufacturers of foods, beverages and pharmaceuticals.

## Program Learning Outcomes

- Perform quality tests.
- Demonstrate safety standards.
- Apply knowledge of production processes.

COURSES	CREDITS
<b>CHEMT-101</b> Chemical Laboratory/Process Safety ‡ ^	2
<b>CHEMT-103</b> Introduction to Chemical Technology ^	2
<b>CHEMT-111</b> General Chemistry 1 ‡ ^	5
<b>ENG-195</b> Written Communication ‡ ^ (or) ENG-201 English 1 ‡	3
<b>BIOSCI-177</b> General Anatomy and Physiology ‡ (or) BIOSCI-236 Principles of Biology ‡	4
<b>CHEMT-105</b> Introduction to Instrumental Methods ^	3
<b>CHEMT-112</b> General Chemistry 2 ‡ ^	5
<b>ENG-197</b> Technical Reporting ‡ ^ (or) Any 200-level ENG or SPEECH course	3
<b>PSYCH-199</b> Psychology of Human Relations (or) Any 200-level PSYCH course	3
<b>SOCSCI-197</b> Contemporary American Society (or) Any 200-level SOCSCI course	3
<b>CHEM-186</b> Introductory Biochemistry ‡	4
<b>FSTEC-101</b> Food Quality Management	4
<b>FSTEC-190</b> Food Science	3
<b>MATH-115</b> College Technical Mathematics 1 ‡ (or) Any 200-level MATH course	5
<b>BIOSCI-197</b> Microbiology ‡	4
<b>ELECTIVES</b> (Two credits)	2
<b>FSTEC-103</b> Manufacturing Processes and Lab Science	2
<b>FSTEC-191</b> Food Science Nutrition (or) BIOSCI-220 Introduction to Nutritional Science	3

## CREDITS

Total credits needed to complete this degree

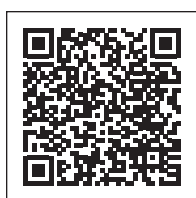
# 60

‡ Prerequisite required.

^ Counts toward earning the Science Processing Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

# IT Computer Support Specialist

PROGRAM CODE: 10-154-3



Associate Degree



**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This program prepares you for industry-sought certifications, including CompTIA's A+, Network+, Security+ and Mobility+ Device Administrators (iOS, Android and Windows), Microsoft Certified Professional in Windows Desktop, Microsoft Enterprise Desktop Support Technician (MCITP), Apple OSX Certified Support Professional (ACSP), HDI-SCA, HDI-DST and ITIL Foundation.

## Career Outlook

Computer support specialists are in high demand locally and throughout the United States. Typical job titles include junior help desk technician, junior support specialist, Apple support specialist, mobile device support specialist, desktop support specialist and IT field technician.

## Program Learning Outcomes

- Manage information technology hardware.
- Manage software.
- Support computer networks.
- Provide end-user support.



## Complete Program Details

**QUESTIONS?** 414-297-6319 or stempathway@matc.edu

COURSES	CREDITS
ENG-195	Written Communication ‡ ^ † ..... 3 (or) ENG-201 English 1 ‡
ITSUP-101	Computer Information Systems Fundamentals ^ † ..... 3
ITSUP-109	Microsoft Office for IT Professionals ^ † ..... 3
ITSUP-111	CompTIA A+ Software Support ^ † ..... 3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) ^ * † ..... 3
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
ITNET-101	Network Communications (Network+) ^ † ..... 3
ITSUP-102	CompTIA A+ Essentials ^ † ..... 3
ITSUP-177	Intro to IT Projects, Teamwork and Self-Management † ..... 3
ITSUP-197	Business Data Analytics ..... 3
ITSUP-150	Mobile Device Repair and Maintenance * † ..... 3
ITSUP-152	MacOS Support Essentials * † ..... 3
ITSUP-155	IT Career Skills ^ † ..... 3
MATH-123	Math With Business Applications ‡ ..... 3 (or) Any 200-level MATH course
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level SOCSCI or HIST course
ELECTIVES	(Three credits) ..... 3
ITSEC-124	Network Security (Security+) ^ † ..... 3
ITSUP-106	Linux Support ..... 1
ITSUP-153	Mobile Device Administration * † ..... 3
ITSUP-198	Computer Support Specialist Internship ‡ † ..... 1
ITSUP-199	Integrated Project – Computer Support Specialist † ..... 1
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

^ Counts toward earning the IT Computer Support Technician technical diploma.

† Counts toward earning the IT Help Desk Support Specialist technical diploma.

\* Counts toward earning the IT User Support Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# IT Computer Support Technician

PROGRAM CODE: 31-154-6



Technical Diploma



COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
ITSUP-101	Computer Information Systems Fundamentals ^ * ..... 3
ITSUP-109	Microsoft Office for IT Professionals * † ..... 3
ITSUP-111	CompTIA A+ Software Support † ..... 3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) ^ * † ..... 3
ITNET-101	Network Communications (Network+) ..... 3
ITSEC-124	Network Security (Security+) ..... 3
ITSUP-102	CompTIA A+ Essentials ^ ..... 3
ITSUP-155	IT Career Skills ..... 3

**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level algebra and knowledge of computer fundamentals

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

### Program Description

Coursework in this program prepares you for industry-sought certifications, including CompTIA's A+, Network+, Security+, Microsoft Certified Professional in Windows Desktop, Microsoft Enterprise Desktop Support Technician (MCITP), HDI-SCA, HDI-DST, ITIL Foundation and more.

### Career Outlook

Computer support technicians are in demand locally and nationally.

### Program Learning Outcomes

- Provide entry-level end-user support.
- Manage operating systems and application software.
- Support information technology hardware.
- Provide basic network support for existing network installations.

### CREDITS

Total credits needed to complete this diploma

# 27

‡ Prerequisite required.

\* Counts toward earning the Level 2 – Service Center Technician certificate.

† Counts toward earning the Microsoft Enterprise Desktop Support Specialist certificate.

^ Counts toward earning the Service Center Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

# IT Digital Forensics Analyst

PROGRAM CODE: 31-150-1



Technical Diploma



**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirements:** High school diploma or equivalent. Student also needs to meet one of these requirements: be currently working in the IT security field or related field (or) be currently enrolled in the IT Information Systems Security Specialist associate degree program (or) receive approval from the program chairperson.

**Academic Preparedness Requirement:** High school algebra

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

Enter the growing field of digital and computer forensics investigation. The comprehensive coursework includes material from basic networking, basic security, network security, information systems auditing, risk management, and security policy and procedures. Several courses cover specialized areas of forensics, such as mobile forensics and internet forensics. You can work toward earning several industry certifications.

## Career Outlook

Due to increases in cybercrimes, this is projected to be a high-demand occupation.

## Program Learning Outcomes

- Analyze a cybercrime scene to choose appropriate best-practice procedures for retrieval, recovery and preservation of digital evidence.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

## COURSES

COURSES		CREDITS
ITNET-131	Introduction to Networks (Cisco 1).....	3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡.....	3
ITSEC-114	Information Security Principles.....	3
ITSEC-124	Network Security (Security+).....	3
ITNET-161	Linux Overview.....	2
ITSEC-126	Computer Forensics.....	3
ITSEC-151	IT – Auditing.....	3
ITSEC-152	Information Security Risk Management.....	3
ITSEC-156	Mobile Devices Forensics.....	3
ENG-195	Written Communication ‡..... (or) Any 200-level ENG course	3
ITSEC-166	Advanced Forensics.....	3
ITSEC-176	Malware Forensics.....	3
ITSEC-146	Security Measures and Intrusion Detection.....	3

## CREDITS

Total credits needed to complete this diploma

# 38

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# IT Help Desk Support Specialist

PROGRAM CODE: 31-154-7



Technical Diploma

**Location:** Online Campus, West Allis Campus**Start Dates:** August and January**Admission Requirement:** High school diploma or equivalent**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Prepare for industry-sought certifications, including CompTIA's A+, Network+, Security+ and Mobility+ Device Administrators (iOS, Android and Windows), Microsoft Certified Professional in Windows Desktop, Microsoft Enterprise Desktop Support Technician (MCITP), Apple OSX Certified Support Professional (ACSP), HDI-SCA, HDI-DST and ITIL Foundation.

## Career Outlook

Employment opportunities are expected to increase about 23% in Wisconsin and 19% nationally between 2014 and 2024.

## Program Learning Outcomes

- Manage information technology hardware.
- Manage software.
- Support computer networks.
- Provide end-user support.



## Complete Program Details

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
ITSUP-101	Computer Information Systems Fundamentals ^ * ..... 3
ITSUP-109	Microsoft Office for IT Professionals * † ..... 3
ITSUP-111	CompTIA A+ Software Support † ..... 3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) ^ * † ..... 3
ITNET-101	Network Communications (Network+) ..... 3
ITSUP-102	CompTIA A+ Essentials ^ ..... 3
ITSUP-177	Intro to IT Projects, Teamwork and Self-Management .... 3
ITSUP-150	Mobile Device Repair and Maintenance ..... 3
ITSUP-152	MacOS Support Essentials ..... 3
ITSUP-155	IT Career Skills ..... 3
ITSEC-124	Network Security (Security+) ..... 3
ITSUP-153	Mobile Device Administration ..... 3
ITSUP-198	Computer Support Specialist Internship ‡ ..... 1
ITSUP-199	Integrated Project – Computer Support Specialist ..... 1

## CREDITS

Total credits needed to complete this diploma

41

‡ Prerequisite required.

^ Counts toward earning the Service Center Technician certificate.

\* Counts toward earning the Level 2 – Service Center Technician certificate.

† Counts toward earning the Microsoft Enterprise Desktop Support Specialist certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# IT Information Systems Security Specialist



Associate Degree

PROGRAM CODE: 10-151-3



**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level algebra or one semester of college-level algebra, and Microsoft Windows or Macintosh operating system skills

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Prepare for a career in computer network and internet security by learning to develop information security strategies, perform risk analyses, install security software, monitor network traffic and develop an emergency response plan. You will have hands-on coursework in securing MS Windows, Unix/Linux, Cisco, networks, servers and clients, and the enterprise network.

## Career Outlook

Employment opportunities are growing due to the increased need for secure computer systems.

## Program Learning Outcomes

- Identify security strategies.
- Implement secure infrastructures.
- Conduct security testing.
- Analyze security data.
- Mitigate risk.
- Develop security documentation.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

## COURSES

		CREDITS
<b>ENG-195</b>	Written Communication ‡ ..... (or) ENG-201 English 1 ‡	3
<b>ITNET-110</b>	Managing Windows Desktop (Client) Operating System ....	3
<b>ITNET-131</b>	Introduction to Networks (Cisco 1).....	3
<b>ITSEC-124</b>	Network Security (Security+) .....	3
<b>MATH-123</b>	Math With Business Applications ‡..... (or) Any 200-level MATH course	3
<b>ENG-197</b>	Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
<b>ITNET-112</b>	MS Server Administration 1.....	3
<b>ITNET-132</b>	Routing/Switching Essentials (Cisco 2).....	3
<b>ITNET-161</b>	Linux Overview.....	2
<b>ITSEC-152</b>	Information Security Risk Management.....	3
<b>ELECTIVES</b>	(Three credits).....	3
<b>ITNET-111</b>	MS Server Administration 2.....	3
<b>ITSEC-136</b>	Unix/Linux Administration and Security.....	3
<b>ITSEC-145</b>	Perimeter Security.....	3
<b>ITSEC-158</b>	Cloud Security.....	3
<b>PSYCH-199</b>	Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
<b>ITSEC-122</b>	Web/Application Security.....	3
<b>ITSEC-126</b>	Computer Forensics .....	3
<b>ITSEC-146</b>	Security Measures and Intrusion Detection .....	3
<b>ITSEC-191</b>	Information Systems Security Internship 2 ‡ ..... (or) ITSEC-194 Security Project Implementation	1
<b>SOCSCI-197</b>	Contemporary American Society .....	3
	(or) Any 200-level SOCSCI or HIST course	

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# IT Mobile Applications Developer

PROGRAM CODE: 10-152-8



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Develop your skills in software development with an emphasis on creating mobile applications. You will learn essential programming skills while developing mobile applications for both iOS and Android platforms.

## Career Outlook

There is a growing need for qualified mobile application developers. Graduates of this program also may find employment in programming or operations and systems analysis.

## Program Learning Outcomes

- Gather mobile requirements.
- Design mobile applications.
- Integrate mobile data technologies.
- Build mobile applications.
- Develop technical documentation for mobile applications.
- Implement current platforms support.



## Complete Program Details

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
ITDEV-110	Introduction to Object-Oriented Programming ‡ ..... 3
ITDEV-117	Logic and Problem-Solving ..... 3
WEBDEV-114	Web Development With HTML/CSS ..... 3
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
ITDEV-115	Intermediate Object-Oriented Programming ‡ ..... 3
ITDEV-140	Programming With Java ‡ ..... 3
ITDEV-150	Database Management With SQL ..... 3
ITDEV-160	Web Programming With Scripts (JavaScript) ..... 3
ITDEV-154	Data Structures and Programming ‡ ..... 3
ITDEV-161	Web Programming 1 ‡ ..... 3
ITDEV-181	Mobile Application Development ‡ ..... 3
MATH-123	Math With Business Applications ‡ ..... 3 (or) Any 200-level MATH course
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
ELECTIVES	(Three credits) ..... 3
IT-107	Social Networking and Business Communications ..... 3
ITDEV-177	Systems Analysis and Design ‡ ..... 3
ITDEV-182	Hybrid Mobile App Development ‡ ..... 3
ITDEV-184	iPhone and iOS Mobile App Development ..... 3
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level SOCSCI or HIST course

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# IT Network Specialist (AI, Cloud and Virtualization)

PROGRAM CODE: 10-150-2



Associate Degree



**Location:** Online Campus and West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirements:** One year of high school-level algebra or one semester of college-level algebra. Requires interview with instructor; fill out form on program's webpage.

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Through hands-on coursework, you will set up and troubleshoot computer and network operating systems along with working with emerging IT technologies such as AI, cloud and virtualization technology. Certification preparations in this degree include: VMware Certified Professional (VCP-DCV), Cisco Certified Networking Associate (CCNAv7), Microsoft Certifications, Amazon Web Services Cloud Practitioner (AWS-CP), Testout and CompTIA (A+, Network+ and Security+).

## Career Outlook

Employment opportunities are strong. This associate degree program prepares you for entry-level positions with opportunities for advancement. The program also prepares you for many industry-sought certifications.

## Program Learning Outcomes

- Implement computer networks.
- Implement client systems.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
IT-107	Social Networking and Business Communications ..... 3
ITNET-101	Network Communications (CompTIA Network+) ^ ..... 3
ITNET-110	Managing Windows Desktop (Client) Operating System ^ ..... 3
ITNET-131	Introduction to Networks (Cisco 1) ^ ..... 3
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
ITNET-112	MS Server Administration 1 ^ ..... 3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡ ^ ..... 3
ITSEC-124	Network Security (Security+) ..... 3
ITSUP-102	CompTIA A+ Essentials ..... 3
ITNET-111	MS Server Administration 2 ^ ..... 3
ITNET-133	Scaling Networks (Cisco 3) ‡ ^ ..... 3
ITNET-154	Scripting for Network Administrators ^ ..... 3
ITNET-159	Cloud Infrastructure Services ..... 3
MATH-123	Math With Business Applications ‡ ^ ..... 3 (or) Any 200-level MATH course
ELECTIVES	(Three credits) ..... 3
ITNET-157	Virtualization Technologies ^ ..... 3
ITNET-198	Network Specialist Internship ‡ ..... 1
ITNET-199	Integrated Project – Network Specialist ..... 2
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level HIST or SOCSCI course

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

^ Counts toward earning the IT Networking and Infrastructure Administration technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



**IT Network Specialist (AI, Cloud and Virtualization) Online Accelerated Cohort**

PROGRAM CODE: 10-150-2

Associate Degree

**Location:** Online Campus**Start Dates:** August and January**Admission Requirement:** High school diploma or equivalent**Academic Preparedness Requirements:** One year of high school-level algebra or one semester of college-level algebra. Requires interview with instructor; fill out form on program's webpage at [matc.edu](http://matc.edu).**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).**Program Description**

The Accelerated Online program is an 18- to 20-month, cohort-based program where students take technical courses from the IT Network Specialist associate degree and IT Networking and Infrastructure Administration technical diploma. You work with the same set of students and instructors for the duration of the program, reducing redundancy and using the same learning tools throughout. This is an excellent environment for adult learners, career changers, displaced workers and students with existing degrees.

**Career Outlook**

Employment opportunities are strong. This associate degree program prepares you for entry-level positions with opportunities for advancement. The program also prepares you for many industry-sought certifications.

**Program Learning Outcomes**

- Implement computer networks.
- Implement client systems.

**Complete Program Details****QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
IT-107	Social Networking and Business Communications ..... 3
ITNET-101	Network Communications (CompTIA Network+) ^ ..... 3
ITNET-110	Managing Windows Desktop (Client) Operating System ^ ..... 3
ITNET-131	Introduction to Networks (Cisco 1) ^ ..... 3
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
ITNET-112	MS Server Administration 1 ^ ..... 3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡ ^ ..... 3
ITSEC-124	Network Security (Security+) ..... 3
ITSUP-102	CompTIA A+ Essentials ..... 3
ITNET-111	MS Server Administration 2 ^ ..... 3
ITNET-133	Scaling Networks (Cisco 3) ‡ ^ ..... 3
ITNET-154	Scripting for Network Administrators ^ ..... 3
ITNET-159	Cloud Infrastructure Services ..... 3
MATH-123	Math With Business Applications ‡ ^ ..... 3 (or) Any 200-level MATH course
ELECTIVES	(Three credits) ..... 3
ITNET-157	Virtualization Technologies ^ ..... 3
ITNET-198	Network Specialist Internship ‡ ..... 1
ITNET-199	Integrated Project – Network Specialist ..... 2
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level HIST or SOCSCI course

**CREDITS**

Total credits needed to complete this degree

**60**

‡ Prerequisite required.

^ Counts toward earning the IT Networking and Infrastructure Administration technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# IT Networking and Infrastructure Administration



Technical Diploma

PROGRAM CODE: 31-150-2



**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra or one semester of college-level algebra

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Through hands-on coursework, you will set up and troubleshoot computer and network operating systems and work with emerging IT technologies. Certification preparations in this program include VMware Certified Professional (VCP-DCV), Cisco Certified Networking Associate (CCNAv7), Microsoft Certifications, Testout and CompTIA (Network+).

## Career Outlook

Opportunities are strong, including positions for network administrators, specialists and technicians.

## Program Learning Outcomes

- Implement network security, firewalls, ACLs and VLANs.
- Install network/server hardware, software and operating systems.
- Support, monitor and maintain computers and computer networks.
- Utilize emerging technologies such as machine virtualization, wireless networking and cloud computing.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

## COURSES

COURSES		CREDITS
ITNET-101	Network Communications (Network+).....	3
ITNET-110	Managing Windows Desktop (Client) Operating System ....	3
ITNET-131	Introduction to Networks (Cisco 1).....	3
ITNET-112	MS Server Administration 1 .....	3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡.....	3
ITNET-157	Virtualization Technologies .....	3
MATH-123	Math With Business Applications ‡.....	3
ITNET-111	MS Server Administration 2.....	3
ITNET-133	Scaling Networks (Cisco 3) ‡.....	3
ITNET-154	Scripting for Network Administrators.....	3
ITNET-199	Integrated Project-Network Sp .....	2

## CREDITS

Total credits needed to complete this diploma

# 32

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# IT User Support Technician

PROGRAM CODE: 30-154-6



Technical Diploma

**Location:** Online Campus, West Allis Campus**Start Dates:** August and January**Admission Requirement:** High school diploma or equivalent**Academic Preparedness Requirements:** One year of high school-level algebra and knowledge of computer fundamentals**Financial Aid Eligible:** No

## Program Description

Receive Apple support training, along with instruction in mobile device repair and administration, through this 12-credit program. The coursework prepares you for Apple ACSP, CompTIA's Mobility+ and HDI-SCA, HDI-DST and ITIL Foundation industry-standard certifications.

## Career Outlook

Support technicians are in demand locally and nationally.

## Program Learning Outcomes

- Support and maintain computer and mobile hardware.
- Support and maintain computer operating systems.
- Manage computer network connected devices.
- Demonstrate customer service skills as an IT professional.

**Complete Program Details****QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

## COURSES

COURSES	CREDITS
<b>ITSUP-140</b> Support Center Analyst (HDI-SCA, HDI-DST, ITIL) .....	3
<b>ITSUP-150</b> Mobile Device Repair and Maintenance .....	3
<b>ITSUP-152</b> MacOS Support Essentials .....	3
<b>ITSUP-153</b> Mobile Device Administration .....	3

## CREDITS

Total credits needed to complete this diploma

**12**

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# IT Web and Software Developer

PROGRAM CODE: 10-152-7



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Develop software applications that can be deployed using a variety of platforms. You will learn essential programming skills while developing software that utilizes client and server processing, connects to databases, and runs simultaneously on multiple devices.

## Career Outlook

There is a growing need for qualified web and software developers. Program graduates also may pursue opportunities related to programming and database management.

## Program Learning Outcomes

- Design web and software applications.
- Apply data persistence technologies.
- Develop software applications.
- Develop web applications.
- Develop documentation.
- Use infrastructures.
- Analyze new technologies.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
ENG-195	Written Communication ‡ ..... 3 (or) ENG-201 English 1 ‡
ITDEV-110	Introduction to Object-Oriented Programming ‡ ..... 3
ITDEV-117	Logic and Problem-Solving ..... 3
WEBDEV-114	Web Development With HTML/CSS ..... 3
ENG-197	Technical Reporting ‡ ..... 3 (or) Any 200-level ENG or SPEECH course
ITDEV-115	Intermediate Object-Oriented Programming ‡ ..... 3
ITDEV-140	Programming With Java ‡ ..... 3
ITDEV-150	Database Management With SQL ..... 3
ITDEV-160	Web Programming With Scripts (JavaScript) ..... 3
MATH-123	Math With Business Applications ‡ ..... 3 (or) Any 200-level MATH course
ITDEV-154	Data Structures and Programming ‡ ..... 3
ITDEV-161	Web Programming 1 ‡ ..... 3
ITDEV-162	Client/Server and eCommerce Implementation ..... 3
PSYCH-199	Psychology of Human Relations ..... 3 (or) Any 200-level PSYCH course
ELECTIVES	(Three credits) ..... 3
IT-107	Social Networking and Business Communications ..... 3
ITDEV-164	Web Programming 2 ‡ ..... 3
ITDEV-177	Systems Analysis and Design ‡ ..... 3
ITDEV-185	Advanced Object-Oriented Programming ‡ ..... 3
SOCSCI-197	Contemporary American Society ..... 3 (or) Any 200-level SOCSCI course

## CREDITS

Total credits needed to complete this degree

# 60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).



# Level 2 – Service Center Technician

PROGRAM CODE: 61-154-3



Certificate



### COURSES

<b>ITSUP-101</b>	Computer Information Systems Fundamentals .....	<b>3</b>
<b>ITSUP-109</b>	Microsoft Office for IT Professionals.....	<b>3</b>
<b>ITSUP-140</b>	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) .....	<b>3</b>

### CREDITS

#### CREDITS

Total credits needed to complete this certificate

# 9

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** No

### Program Description

This certificate provides preparation for CompTIA's Network+ and Security+ certifications, HDI's Support Center Analyst and Desktop Support Technician, as well as ITIL. Students acquire the skills necessary for level-two service center support.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

# Mechanical and Computer Drafting

PROGRAM CODE: 31-421-2



Technical Diploma

**Location:** Downtown Milwaukee Campus**Start Date:** August**Admission Requirement:** High school diploma or equivalent**Academic Preparedness Requirement:** One year of high school-level algebra or equivalent**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

This program prepares you to be a detail drafter in the mechanical drafting field. For a new product to become reality, it must exist in the mind of the engineer, designer or drafter; then it is the detail drafter, working from design layouts, sketches and handbooks, who creates working drawings that aid in manufacturing the product.

## Career Outlook

The employment outlook is favorable for mechanical drafters with current training in computer-aided design and drafting (CADD) systems.

## Program Learning Outcomes

- Prepare detail and assembly drawings for documentation of mechanical components and products.
- Create CAD geometry, parts and assemblies.
- Design mechanical components and products.
- Select purchased parts.

**Complete Program Details****QUESTIONS?** 414-297-6319 or stempathway@matc.edu

## COURSES

COURSES	CREDITS
<b>CIVIL-102</b> Introduction to AutoCAD.....	2
<b>CIVIL-105</b> Computer Applications .....	2
<b>MCDESG-102</b> Technical Drafting 1 ‡ .....	3
<b>MCDESG-162</b> Engineering Materials.....	2
<b>MATH-115</b> College Technical Mathematics 1 ‡ .....	5
<b>MCDESG-104</b> Technical Drafting 2 With CAD ‡.....	3
<b>MCDESG-114</b> SolidWorks 1 .....	2
<b>MCDESG-106</b> Advanced Engineering Graphics ‡ .....	3
<b>MCDESG-124</b> SolidWorks 2 ‡ .....	2
<b>MCDESG-163</b> Machining Processes ‡.....	2

## CREDITS

Total credits needed to complete this diploma

# 26

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

# Mechanical Design Technology

PROGRAM CODE: 10-606-1



Associate Degree



**Location:** Downtown Milwaukee Campus

**Start Date:** August

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra or equivalent

**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Get involved in the engineering design process — design and analyze mechanical components and assemblies. Create 3D solid models and 2D detailed drawings for parts or assemblies of mechanical and electromechanical systems using the latest computer-aided design/drafting (CADD) systems.

## Career Outlook

The employment outlook is favorable for mechanical drafters/designers having current training involving CADD systems.

## Program Learning Outcomes

- Prepare detail and assembly drawings for documentation of mechanical components and products.
- Create CAD geometry, parts and assemblies.
- Design mechanical components and products.
- Analyze mechanical engineering problems.
- Select purchased parts.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>CIVIL-102</b> Introduction to AutoCAD ^ .....	2
<b>CIVIL-105</b> Computer Applications ^ .....	2
<b>MATH-115</b> College Technical Mathematics 1 ‡ ^ .....	5
(or) MATH-201 College Algebra (4 credits) ‡	
<b>MCDESG-102</b> Technical Drafting 1 ‡ ^ .....	3
<b>MCDESG-162</b> Engineering Materials ^ .....	2
<b>MATH-116</b> College Technical Mathematics 2 ‡ .....	4
(or) MATH-202 Trigonometry (3 credits)	
<b>MCDESG-104</b> Technical Drafting 2 With CAD ‡ ^ .....	3
<b>MCDESG-114</b> SolidWorks 1 ^ .....	2
<b>MCDESG-160</b> Statics ‡ .....	3
<b>SOCSCI-197</b> Contemporary American Society .....	3
(or) Any 200-level SOCSCI or HIST course	
<b>ENG-195</b> Written Communication ‡ .....	3
(or) ENG-201 English 1 ‡	
<b>MCDESG-106</b> Advanced Engineering Graphics ‡ ^ .....	3
<b>MCDESG-118</b> Kinematics ‡ .....	3
<b>MCDESG-124</b> SolidWorks 2 ‡ ^ .....	2
<b>MCDESG-130</b> Strength of Materials ‡ .....	3
<b>MCDESG-163</b> Machining Processes ‡ ^ .....	2
<b>ELECTIVES</b> (Two credits) .....	2
<b>ENG-196</b> Oral/Interpersonal Communication ‡ .....	3
(or) Any 200-level ENG or SPEECH course	
<b>MCDESG-112</b> Tool Design ‡ .....	3
<b>MCDESG-116</b> Design Elements ‡ .....	3
<b>MCDESG-125</b> Design Problems ‡ .....	3
<b>MCDESG-135</b> PTC Creo (Pro/E) 1 .....	2
<b>PSYCH-199</b> Psychology of Human Relations .....	3
(or) Any 200-level PSYCH course	

## CREDITS

Total credits needed to complete this degree

# 64

‡ Prerequisite required.

^ Counts toward earning the Mechanical and Computer Drafting technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Microsoft Enterprise Desktop Support Specialist

PROGRAM CODE: 61-154-2



Certificate



## COURSES

## CREDITS

<b>ITSUP-109</b>	Microsoft Office for IT Professionals.....	<b>3</b>
<b>ITSUP-111</b>	CompTIA A+ Software Support .....	<b>3</b>
<b>ITSUP-140</b>	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) .....	<b>3</b>

## CREDITS

Total credits needed to complete this certificate

# 9

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** No

## Program Description

Skill sets gained will provide working knowledge to identify and resolve operating system, application and security issues; and to maintain and manage Windows 7 systems. Hands-on lab learning includes installations, deployments, configurations, maintenance and monitoring systems.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



## Complete Program Details

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)



# Science Processing Technician

PROGRAM CODE: 30-603-1



Technical Diploma

**Location:** Downtown Milwaukee Campus**Start Dates:** August and January**Admission Requirement:** High school diploma or equivalent**Academic Preparedness Requirement:** One year of high school chemistry or equivalent**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

## Program Description

Apply your interests in preparing chemical solutions and using chemical apparatus to the work performed in industrial operations. Through this program, you will gain skills required for working in industrial chemical processing and pilot plant operations.

## Career Outlook

Employment prospects are strong, locally and nationally. Success in the workplace requires the ability to work independently and accurately, with a minimal level of supervision.

## Program Learning Outcomes

- Apply knowledge of chemical apparatus, equipment and procedures in various production, research and control operations.
- Communicate and receive precise chemical data and procedures.
- Use software for process control and chemical inventory.
- Practice plant safety procedures.
- Utilize safety data sheets and global harmonization system.

**Complete Program Details****QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
CHEMT-101 Chemical Laboratory/Process Safety ‡.....	2
CHEMT-103 Introduction to Chemical Technology.....	2
CHEMT-111 General Chemistry 1 ‡..... (or) CHEM-211 Chemistry 1	5
ENG-195 Written Communication ‡.....	3
CHEMT-105 Introduction to Instrumental Methods.....	3
CHEMT-112 General Chemistry 2 ‡..... (or) CHEM-212 Chemistry 2	5
ENG-197 Technical Reporting ‡.....	3

## CREDITS

Total credits needed to complete this diploma

# 23

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

# Service Center Technician

PROGRAM CODE: 61-154-1



Certificate



## COURSES

<b>ITSUP-101</b>	Computer Information Systems Fundamentals .....	<b>3</b>
<b>ITSUP-102</b>	CompTIA A+ Essentials .....	<b>3</b>
<b>ITSUP-140</b>	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) .....	<b>3</b>

## CREDITS

### CREDITS

Total credits needed to complete this certificate

# 9

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at [selfservice.matc.edu](https://selfservice.matc.edu).

**Location:** Online Campus, West Allis Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra

**Financial Aid Eligible:** No

### Program Description

Start your information technology career through this certificate program that can be completed in one semester. You will gain important skills and prepare for several key industry certification exams, including CompTIA A+, IT Technician, Help Desk Institute (HDI) Support Center Analyst, HDI-Desktop Support Technician and ITIL Foundation.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

# Surveying and Mapping

PROGRAM CODE: 30-607-1



Technical Diploma



**Location:** Downtown Milwaukee Campus

**Start Dates:** August and January

**Admission Requirement:** High school diploma or equivalent

**Academic Preparedness Requirement:** One year of high school-level algebra (grade C or higher)

**Financial Aid Eligible:** Yes. Use code 003866 at [fafsa.gov](http://fafsa.gov).

## Program Description

As a surveying technician, graduates of this program typically work under the direction of an engineer or surveyor to operate surveying equipment, record measurements and produce drawings showing boundaries, key locations, elevations and other terrain features.

## Career Outlook

Surveying and mapping technicians are needed in all phases of construction, and employer demand is good in the current job market.

## Program Learning Outcomes

- Operate surveying instruments to collect data on location.
- Operate Trimble data collection systems, GPS receivers and robotic total stations.
- Draft and analyze traverse field data using Autodesk Civil 3D software.
- Illustrate basic drawings of circular horizontal curves, vertical curves, plans, profiles and cross-sections.



**Complete Program Details**

**QUESTIONS?** 414-297-6319 or [stempathway@matc.edu](mailto:stempathway@matc.edu)

COURSES	CREDITS
<b>CIVIL-101</b> Civil Engineering Drawing.....	2
<b>CIVIL-102</b> Introduction to AutoCAD.....	2
<b>CIVIL-105</b> Computer Applications .....	2
<b>CIVIL-155</b> Surveying 1 .....	2
<b>MATH-115</b> College Technical Mathematics 1 ‡ .....	5
(or) MATH-201 College Algebra ‡	
<b>CIVIL-106</b> Intermediate AutoCAD ‡.....	2
<b>CIVIL-156</b> Surveying 2 ‡.....	2
<b>ENG-195</b> Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
<b>CIVIL-110</b> Introduction to Civil 3D ‡.....	2
<b>CIVIL-157</b> Route and Highway Surveying ‡.....	3

## CREDITS

Total credits needed to complete this diploma

# 25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online.

Check each course's delivery options in Self-Service at [selfservice.matc.edu](http://selfservice.matc.edu).

This program is approved through the Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors; Department of Safety and Professional Services, P.O. Box 8366, Madison, WI 53708-8366; 608-266-2112; <https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>.





# COURSE DESCRIPTIONS

## ALPHABETICAL LIST OF SUBJECTS

Each MATC course is identified by a grouping of two to six letters and a set of three numbers. For example, in the course number **CARP-301**, the letters **CARP** form the alphabetic code that identifies the subject in which the course is taught — the subject is Carpentry for this example. Below you will find a list of the subjects and their alphabetic codes and department numbers. The listing of courses in this Course Descriptions section is by the subject's alphabetic code shown in capital letters.

### LIST OF SUBJECTS (FOLLOWED BY DEPARTMENT NUMBERS IN PARENTHESES)

Course description information subject to change. Online visit [matc.edu](http://matc.edu) and search Course Catalog.

ACCTG	Accounting (101)	EDF	Educational Foundation (809)	MATRLS	Materials Technology (613)
ADVMFG	Advanced Manufacturing (664)	ELCTEC	Electronics (605)	MCDESG	Mechanical Design Technology (606)
AESTHE	Aesthetician (502)	ELECTY	Electricity (413)	MDRAFT	Mechanical and Computer Drafting (421)
ANIM	Animation (207)	EMS	Emergency Medical Services (531)	MEDAST	Medical Assistant (509)
ANTECH	Anesthesia Technology (541)	ENG	English (801)	MEDINT	Medical Interpreter (538)
ARCHT	Architectural Technology (614)	ENTREP	Entrepreneurship (145)	MEET	Meeting and Event Management (109)
ART	Art (815)	ENVHEL	Environmental Health (506)	MFGMNT	Manufacturing Maintenance (462)
AUDIO	Audio Production (701)	EYI	Enhanced Yoga Instructor (546)	MKTG	Marketing (104)
AUTO1	Auto Maintenance Technician (404)	FIN	Financial (114)	MLABT	Medical Laboratory Technician (513)
AUTO2	Automotive Technology (602)	FIRE	Fire Protection Technician (503)	MTLGY	Metallurgy (422)
AUTOBY	Auto Collision Repair/Finish (405)	FLANG	Foreign Language (802)	MUSIC	Music (805)
AVITEC	Aviation (486)	FOTE	Foundations of Teacher Education (522)	NAILS	Nail Technician (502)
BADM	Business Administration (102)	FSTEC	Food Science Technician (623)	NRSAD	Associate Degree Nursing (543)
BAKING	Baking (314)	FUNERL	Funeral Service (528)	NRSNA	Nursing Assistant (543)
BARBER	Barber (502)	GENST	General Studies (890)	NRSPN	Practical Nursing (543)
BARCOS	Barber/Cosmetology (502)	GEOSCI	Geological Science (806)	NURSAD	Medical Support (510)
BAS	Building Automation Systems (481)	GLOBAL	Global Studies (140)	OFTECH	Office Technology (106)
BIOSCI	Biological Science (806)	GRDS	Graphic Design (201)	OTASST	Occupational Therapy Assistant (514)
BNLST	Business Analyst (102)	HEALTH	Health (501)	PHARMT	Pharmacy Technician (536)
BRHLTH	Business-Related Health (160)	HIST	History (803)	PHOTO	Photography (203)
CABMIL	Cabinetmaking and Millwork (409)	HIT	Health Information Technology (530)	PHYED	Physical Education (807)
CARP	Carpentry (410)	HORT	Landscape Horticulture (001)	PHYS	Physical Sciences (806)
CHEM	Chemistry (806)	HOTEL	Hospitality Management (109)	PLEGAL	Paralegal (110)
CHEMT	Chemical Technology (603)	HRMGT	Human Resources (116)	PLUMB	Plumbing (427)
CHILDD	Child Development (307)	HSM	Healthcare Services Management (530)	POLICE	Police Science (504)
CHNN	Community Health and Nutrition Navigator (539)	HUMSVC	Human Services (520)	POWENG	Power Engineering (428)
CIVIL	Civil Engineering Technology (607)	HVAC1	Air Conditioning, Refrigeration and Heating (401)	PSYCH	Psychology (809)
CJS	Criminal Justice Studies (504)	HVAC2	Air Conditioning, Refrigeration and Heating Technology (601)	PTASST	Physical Therapy Assistant (524)
CLABT	Clinical Laboratory Technology (513)	HYDPNU	Hydraulics Pneumatics (419)	QETECH	Quality Engineering Technology (623)
CNC	Computer Numerical Control (444)	IH	Integrative Health (546)	RADT	Radiography Technology (526)
COMPSW	Computer Software (103)	INDSGN	Interior Design (304)	RBUS	Related Business (105)
CONSTR	Construction Trades General (476)	INDVTS	Individualized Technical Studies (825)	RESPC	Respiratory Therapy (515)
COSMET	Cosmetology (502)	INTP	Interpreter Technician (533)	RLEST	Real Estate (194)
CSG	Computer Simulation and Gaming (153)	IT	Information Technology (107)	SOCSCI	Social Science (809)
CULART	Culinary Arts (316)	ITDEV	IT Development/Programming (152)	SPEECH	Speech (810)
CULMGT	Culinary Management (317)	ITNET	IT Networking (150)	SUDC	Substance Disorder Counseling (550)
CVTECH	Cardiovascular Technology (521)	ITSEC	IT Information Security Systems (150)	SURGT	Surgical Technology (512)
DCC	Digital Content Creation (701)	ITSUP	IT Computer Support (154)	TDMKG	Tool and Die Making (439)
DENAST	Dental Assistant (508)	LDRSHP	Leadership Development (196)	TRCKDR	Truck Driving (458)
DENHYG	Dental Hygiene (508)	LOGMGT	Logistics Transportation/ Materials Management (182)	TV	Television and Video Production (701)
DIESEL	Diesel (412)	MACHTL	Machine Tool (420)	WEBDEV	Web Development (201)
DIETNT	Dietetic Technician (313)	MASON	Bricklaying and Masonry (408)	WELD	Welding (442)
DLABT	Dental Technician (507)	MATH	Mathematics (804)	WELDTC	Welding Technology (621)
DMS	Diagnostic Medical Sonography (526)				
ECON	Economics (809)				

# ACCTG – AESTHE

## ACCTG – Accounting (Department 101)

### ACCTG-102 Credits: 3 Basic Office Accounting

The basic structure of accounting is presented. Emphasis is placed on the recording, classifying and summarizing phases. Particular attention is given to procedures related to administrative assistant work, such as petty cash, payroll, bank reconciliation and accounting software.

### ACCTG-110 Credits: 3 Financial Accounting

A survey course stressing a user-oriented approach to basic financial statements, their content, format and use. Transactions, accounting principles and conventions are studied in terms of their effects on corporate financial statements. This course will not substitute for Accounting 1 (ACCTG-111) or Accounting 2 (ACCTG-113).

### ACCTG-111 Credits: 4 Accounting 1

Accounting concepts and general principles are integrated with applications by working through the complete accounting cycle for service and merchandising enterprises. Emphasis is placed on analysis and interpretation as well as on the recording, classifying and summarizing phases. A practice set provides practical experience using accounting theory.

### ACCTG-113 Credits: 4 Accounting 2

A continuation of Accounting 1, focusing on assets, liabilities, and accounting for partnerships and corporations. Financial statement analysis and the cash flow statement are also introduced. Students perform comprehensive financial analysis of a corporation. Prerequisite(s): Complete ACCTG-111 with a grade of C or higher.

### ACCTG-116 Credits: 4 Intermediate Accounting

A study is made of advanced accounting practices and procedures. Emphasis is placed on accounting theory as it relates to income determination and balance sheet preparation for corporate commercial enterprises. Prerequisite(s): Complete ACCTG-113 with a grade of C or higher.

### ACCTG-121 Credits: 4 Income Taxation

The determination of individual income taxes including income, deductions, tax calculations, credits and payments are studied. Students are introduced to income tax laws as they apply to business entities such as partnerships, S-corporations, C-corporations and fiduciary tax entities. Also covered are estate and gift taxes (transfer taxes). Students will prepare individual and business tax forms related to these topics both manually and using tax software.

### ACCTG-122 Credits: 3 Accounting Software Applications

This class focuses on implementing computer functions in an accounting environment. It will cover structuring, organizing, manipulating and analyzing financial data through the use of Microsoft Excel computer software. This course assumes that students have basic knowledge of accounting. Students will take the Microsoft Office Excel Specialist Certification Exam for an extra fee.

### ACCTG-126 Credits: 3 Accounting for Managers

Emphasis is placed on cost analysis, cost behavior and the use of cost data in budgetary cost control, internal profit measurement, profit planning, capital budgeting, and decision-making.

### ACCTG-130 Credits: 3 QuickBooks Online

This introductory QuickBooks Online course takes students through the procedures, controls, inputs and outputs in today's computer accounting systems. Students will be able to navigate a company file, process accounts receivable and accounts payable, manage time-tracking and payroll, track inventory and fixed assets, manage budgets, maintain ledgers and journals, and create reports. Students will take the required QuickBooks Certification Exam for an extra fee. Prerequisite(s): Complete ACCTG-111, ACCTG-102 or ACCTG-110.

### ACCTG-140 Credits: 3 Accounting for Governmental and Nonprofit Entities

Overview course in the area of governmental and not-for-profit accounting. The basic concepts, techniques and terminology of fund accounting as utilized by governmental entities are emphasized. Institutional accounting for educational institutions and hospitals and the uniqueness of accounting for not-for-profit organizations and agencies are also studied. Prerequisite(s): Complete ACCTG-110 or ACCTG-113.

### ACCTG-142 Credits: 2 Payroll Accounting

Procedures used in computing and recording wages and salaries, payroll taxes, and deductions are studied. Alternative processing systems (manual, service bureau and microcomputer) are explored. Federal and state payroll and tax regulations are studied, in addition to preparing payroll tax and information returns.

### ACCTG-145 Credits: 3 Forensic Accounting

Emphasis is placed on explaining the various schemes used by employees to commit fraud, quantifying a company's financial loss from these schemes, illustrating the human factors in fraud, and preventing and detecting fraud. Prerequisite(s): Complete ACCTG-110 or ACCTG-113

### ACCTG-150 Credits: 3 Accounting Practice With a Systems Approach

Using source documents and a manual practice set, students will review procurement and accounts payable, billing and accounts receivable, cash control, and general ledger systems. Adjusting entries will be reviewed. Students will then use QuickBooks software to complete an integrated case study with special emphasis on the general ledger, accounts payable, accounts receivable and payroll. Prerequisite(s): Complete ACCTG-116, ACCTG-130 and ACCTG-142, or ACCTG-143.

### ACCTG-155 Credits: 3 Applied Individual Income Tax

Emphasis is placed on applying the knowledge and skills obtained in Individual Income Tax by preparing tax returns for actual clients. Tax returns are prepared using IRS software. Prerequisite(s): Complete ACCTG-121 or ACCTG-123 with a grade of B or higher.

## ADVMFG – Advanced Manufacturing (Department 664)

### ADVMFG-113 Credits: 3 Advanced Manufacturing DC/AC Circuits 1

This course is designed for students interested in advanced manufacturing while enhancing their basic skills in electronics and mathematics. General mathematical and algebraic skills will be reinforced while being introduced to circuits using Ohm's law and associated principles. Hands-on circuit building exercises, basic electronic instruments and report writing will be emphasized in the lab. Prerequisite(s): Complete MATH-115.

### ADVMFG-114 Credits: 3 Advanced Manufacturing DC/AC Circuits 2

This course, along with ADVMFG-113, helps complete the sequence for students requiring DC and AC electronics in advanced manufacturing technology programs while enhancing their mathematical skills. Emphasis will include more complex circuits with the introduction and analysis of AC circuits. Students will perform laboratory experiments and prepare technical reports. Prerequisite(s): Complete ADVMFG-113.

## AESTHE – Aesthetics (Department 502)

### AESTHE-104 Credits: 3 Spa Treatments

Students build on previous skills. Students are introduced to advanced techniques: deep cleansing facials, extractions, high frequency, microdermabrasion and chemical exfoliation. Students perform treatments on each other while developing skills. Prerequisite(s): Must be admitted to the Aesthetics Skin Care Therapist program (10-502-2) or the Aesthetics program (30-502-3). Completion of or currently enrolled in AESTHE-109, AESTHE-132, AESTHE-135 and AESTHE-134.

# AESTHE – ANIM

**AESTHE-106** Credits: 1

## Advanced Makeup Techniques

Students build on basic makeup theory and color analysis while embracing new techniques such as airbrush and theatrical makeup. Students practice on peers as they develop these advanced skills. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or the Aesthetician program (31-502-2). Complete AESTHE-132, AESTHE-134 and AESTHE-107. Completion of or currently enrolled in AESTHE-133 and AESTHE-135.

**AESTHE-107** Credits: 1

## Advanced Spa Treatments

Students develop advanced skills including the use of DiamondTome's HydroWand® for serum infusion, microcurrent, stones for facial massage, lymphatic drainage, body treatments, aromatherapy and reflexology techniques to relieve tension. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or the Aesthetician program (31-502-2). Complete AESTHE-104, AESTHE-131, AESTHE-109 and AESTHE-146. Completion of or currently enrolled in AESTHE-132 and AESTHE-134.

**AESTHE-108** Credits: 3

## Facial Treatments

This course introduces the theory and practical skills of facials. Back facials are also introduced. Students study the histology of skin, skin analysis, massage manipulations, various products and mask applications. Basic facial makeup application is applied to enhance the client's appearance. The benefits and application of facial machines is also introduced. Prerequisite(s): Must be admitted to the Aesthetician program (30-502-3) or the Aesthetician Skin Care Therapist (10-502-2) program. Completion of or currently enrolled in AESTHE-145, AESTHE-146, AESTHE-131 and AESTHE-117.

**AESTHE-109** Credits: 1

## Hair Removal Techniques

This course introduces the practical skills of hair removal techniques. Students learn how to remove hair on all areas such as the face, underarms, legs, bikini and back. Students perform treatments on each other while developing skills. Prerequisite(s): Must be admitted to the Aesthetician program (30-502-3) or the Aesthetician Skin Care Therapist program (10-502-2).

**AESTHE-117** Credits: 2

## Salon Ecology/Decontamination Procedures

Explore foundational concepts of microbiology as they relate to decontamination, basic chemistry and anatomy within the barbering and cosmetology-related professions. Students participate in large and small groups and/or online. Prerequisite(s): Must be admitted to the Aesthetician program (30-502-3) or the Aesthetician Skin Care Therapist program (10-502-2).

**AESTHE-131** Credits: 3

## Intro: Aesthetics Spa Services

This course introduces students to working on clients in a spa setting. Students schedule appointments, consult with clients, analyze various skin types and perform facial treatments. Students incorporate the use of facial machines during treatments. Students recommend products and perform makeup applications and paraffin treatments. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or the Aesthetician program (30-502-3). Completion of or currently enrolled in AESTHE-104, AESTHE-109 and AESTHE-146.

**AESTHE-132** Credits: 2

## Intermediate Spa Services

Students continue to perform skills learned in spa lab with clients, including microdermabrasion, electrotherapy, chemical peels, waxing, aromatherapy and various massage techniques to relieve tension during the service. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or Aesthetician program (30-502-3). Completion of or currently enrolled in AESTHE-134 and AESTHE-107.

**AESTHE-133** Credits: 3

## Advanced Spa Services

Students continue to build customer service skills through hands-on training. Prerequisite(s): Complete AESTHE-132. Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or the Aesthetician program (30-502-3).

**AESTHE-134** Credits: 2

## Business Fundamentals

Identify essential information required for lawful and successful salon/spa practice and management, including a detailed overview of Wisconsin state laws, rules and employer taxes. Students develop a well-rounded business plan. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or the Aesthetician program (30-502-3).

**AESTHE-135** Credits: 2

## Aesthetician Board Prep

This course will prepare students in the Aesthetician Program for their State Board Licensing Exam. Students will sign up for their board exam, pack, review and practice all required assessment tasks. Students will complete a mock state board exam. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2) or the Aesthetician program (30-502-3).

**AESTHE-136** Credits: 2

## Oncology Aesthetics

Discover the aesthetician's role in caring for clients facing cancer treatments. Learn how cancer affects the skin. Improve awareness of ingredients that balance your clients' skin health and emotional well-being. Prerequisite(s): Complete AESTHE-135. Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program. (10-502-2).

**AESTHE-137** Credits: 2

## Advanced Exfoliation

This course provides vital information on superficial mechanical exfoliation techniques including Dermaplaning and Hydradermabrasion. It includes hands-on instruction, treatment protocols, and how to perform a proper and thorough consultation. Prerequisite(s): Must be admitted to Aesthetician (31-502-2) or Aesthetician Skin Care Therapist programs (10-502-2). Complete AESTHE-135.

**AESTHE-138** Credits: 2

## Advanced Hair Removal

Take your hair removal skills to the next level with this advanced class. Gain confidence in full body waxing, master Brazilian waxing, discover the benefits of sugaring and explore laser hair removal. Prerequisite(s): Complete AESTHE-135. Must be admitted to the Aesthetician (31-502-2) or the Aesthetician Skin Care Therapist (10-502-2) programs.

**AESTHE-139** Credits: 2

## Intro to Holistic Healing

Introduces the holistic, alternative healing arts of Reiki and reflexology. Students study hand positions, pressure points and chakra system, and how to use Reiki and reflexology in daily life to promote relaxation and improve overall health. Prerequisite(s): Complete AESTHE-135. Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2).

**AESTHE-140** Credits: 2

## Advanced Lash Techniques

Advance your knowledge of lashes. Identify characteristics of lashes, learn basic principles of lash design, adhesives extensions, and removal. Students will perform lash lifting and tinting, and practice classic and volume lashes on models following established safety procedures. Prerequisite(s): Complete AESTHE-135. Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2).

**AESTHE-141** Credits: 2

## Advanced Brow Techniques

Expand your brow business with training on brow tinting, microshading, lamination, threading and microblading. Identify licensing requirements, liability issues, pre/post client care, setup requirements and hands-on practice. Prerequisite(s): Complete AESTHE-135. Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2).

**AESTHE-143** Credits: 3

## 21st Century Brand and Marketing

Examine the business functions of marketing and branding in the salon/spa! Learn about target markets and the value in satisfying customer needs and wants to determine appropriate products, services, and programs to serve these markets. Topics include branding and product development, marketing research, promotion,



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

analytics, and service. Students will develop branding and marketing plans. Prerequisite(s): Complete AESTHE-135. Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2).

### **AESTHE-144** Credits: 3 **Master Spa Services**

AAS Program students perform advanced services on public clients in a spa setting for hands-on practice. Includes advanced exfoliation, hair removal, lash and brow service. Prerequisite(s): Complete AESTHE-135, AESTHE-138, AESTHE-139, AESTHE-140 and AESTHE-141. Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2).

### **AESTHE-145** Credits: 2 **SPA Science Fundamentals**

Reviews Aesthetician program expectations. Focuses on concepts of time management, stress management, professional ethics and diverse pigmentation. Students are also introduced to products used within the Aesthetician program. Prerequisite(s): Must be admitted to the Aesthetician program (30-502-3) or the Aesthetician Skin Care Therapist program (10-502-2).

### **AESTHE-146** Credits: 2 **Spa Product Sciences**

Identify common skin diseases and disorders and explore side effects of medication on skin. Discover how product chemistry, specific ingredients and use of spa treatments can improve common skin conditions. Students are introduced to aromatherapy and product development. Prerequisite(s): Must be admitted to the Aesthetician program (30-502-3) or the Aesthetician Skin Care Therapist program (10-502-2).

## **ANIM – Animation (Department 207)**

### **ANIM-101** Credits: 3 **Basic Drawing for Animators**

This course introduces students to the basic principles of drawing volume, shape and form in a digital environment. Students learn to color, construct and create animations in an industry standard software package. Students will explore digital painting, scene compositing, creating x-sheets, building character libraries, sync and adjusting timing as applied to animation film making.

### **ANIM-104** Credits: 3 **Principles of Character Development**

This course will introduce students to character development as it relates to the field of computer animation. Concepts such as pose, expression, scale, squash and stretch will be explored. Students will use hand drawing techniques and traditional “cartoon” style characters. Students will also learn to bring their drawings into the computer to be adjusted, modified and enhanced with Photoshop.

### **ANIM-106** Credits: 3 **Principles of 3D Animation**

This introductory course will guide students through the concepts and techniques used to produce and animate virtual objects in a virtual three-dimensional environment. Basic modeling, texturing and Forward Kinematic motion techniques will be covered using 3D Studio Max.

### **ANIM-110** Credits: 3 **Digital Life Drawing**

This course will introduce students to the foundation of gesture and quick sketching. Students will draw utilizing various mediums in the Photoshop on the Wacom Cintiq tablet/monitors. This course will be offered in spring semesters.

### **ANIM-111** Credits: 3 **Intermediate Digital Life Drawing**

This course will introduce students to the more advanced techniques of quick sketching and digital painting. Students will draw utilizing various mediums in Photoshop on the Wacom Cintiq tablet/monitor. This course will be offered in the fall semester. Prerequisite(s): Complete ANIM-110.

### **ANIM-114** Credits: 3 **Storyboard Pro**

Contents to be covered include purposes and formats of storyboards, basic terminology and concepts used in storyboarding, and the application of storyboarding techniques. We will study the basic formats and camera techniques utilized in storyboarding. Prerequisite(s): Complete ANIM-101.

### **ANIM-120** Credits: 3 **Environment and Set Design**

Students concentrate on the planning and construction of architectural and environmental forms to create sets and backgrounds for animation projects utilizing 3ds Max. Basic architectural principles as they relate to animation and appropriate effects for specific themes are explored as well as landscape environments and atmospheric lighting effects, outer space lighting effects and weather effects. Class activities include using specialized software tools for architectural and environmental forms in the creation of thematic levels and sets. Prerequisite(s): Complete ANIM-106.

### **ANIM-121** Credits: 3 **Intermediate 2D Animation**

Students will continue to develop their skills in character animation in the Adobe Animate, Photoshop and After Effects. Students will be presented with a series of animated assignments dealing with the 12 Principles of Animation. Prerequisite(s): Complete ANIM-138.

### **ANIM-124** Credits: 3 **Animation Layout and Design**

Introduction of concepts/principles of layout design in 2D animation using a variety of assignments. Students will be expected to develop a working knowledge of perspective,

multi-plane camera techniques. Placement of characters/elements into a scene. Prerequisite(s): Complete ANIM-114.

### **ANIM-125** Credits: 3 **3D Modeling**

This course moves students into more complex modeling and surfacing challenges using 3ds Max. Specialized contemporary modeling techniques such as NURBS and subdivision (SUB-D) surfaces are explored as well as specialized shaders, displacement maps and other advanced surfacing options. Students complete the semester with the design and creation of a complex, multipart object correctly constructed, linked and boned for advanced animation techniques. Prerequisite(s): Complete ANIM-106.

### **ANIM-130** Credits: 3 **3D Simulations and Illustrations**

This course will explore product and packaging design, medical illustration, and mechanical illustration. The use of nontraditional shaders such as cartoon shading will be explored in order to achieve a more hand-drawn or illustrated look. Rendered output will also be manipulated with industry-standard image adjustment tools. Prerequisite(s): Complete either ANIM-125 or ANIM-138.

### **ANIM-133** Credits: 3 **Advanced Conceptual Design**

Conceptual design that encompasses all aspects of animation theory and practices. Students will work toward conceptual design of the backgrounds, props and secondary characters to support the main cast of characters. Photoshop will be used in class. Prerequisite(s): Complete ANIM-114.

### **ANIM-138** Credits: 3 **Animation for Game Development**

Students will be introduced to breaking movement down into cycles of animation and 2D sprites to be used in game development. Also, time will be allocated to developing basic background level designs as applied to game development. Prerequisite(s): Complete ANIM-101 and ANIM-104.

### **ANIM-140** Credits: 3 **Timelines, Keyframes and Kinematics**

This course continues from ANIM-125 3D Modeling. We will explore and analyze character motion from several sources in order to accurately and believably replicate that motion with our digital characters. We will also explore topics such as using Inverse and Forward Kinematics during an animation using 3ds Max. Prerequisite(s): Complete ANIM-101 and ANIM-106.

### **ANIM-141** Credits: 3 **Acting for Animation/Lip Sync**

The course will introduce students to concepts and principles of acting for animation and lip-synching utilizing Adobe Animate and Adobe Character Animator. Students will be responsible for animated acting with lip sync as applied to animation. Prerequisite(s): Complete ANIM-110 and ANIM-121.



# ANIM – ARCHT

**ANIM-145** Credits: 3

## Intermediate 3D Animation

This course continues from ANIM-140 Timelines, Keyframes and Kinematics. We will explore and analyze mechanical and quadruped motion from several sources in order to accurately and believably replicate motion with our digital objects and creatures. We will also explore topics such as various constraining techniques and automated approaches used during this type of animation using 3ds Max. Prerequisite(s): Complete ANIM-140.

**ANIM-150** Credits: 2

## Advanced Animation

In this project-based course, students will create a short film (two-three minutes in length) using 2D or 3D animations. During this class, students will be expected to meet production deadlines, to follow proper animation production processes, and to create an entertaining film for the final project. Intensive studio time will be available for the students. Students will have access to instructor at all times. Students will be expected to communicate with the instructor each class to discuss progress. This course allows the student an in-depth study of the animation production process. Prerequisite(s): Complete ANIM-145 or ANIM-121.

**ANIM-156** Credits: 3

## Broadcast Animation

This course introduces students to the concepts of “motion graphics” using bitmapped imagery. Using the industry standard software, After Effects, students will explore animated composition techniques, along with comparison of 2D and 3D technologies widely used to produce animation for the television and video industries.

**ANIM-160** Credits: 2

## Animation Portfolio

Each student finalizes a series of 30-second to three-minute animated shorts demonstrating his/her capabilities. The collection is prepared for distribution to potential employers or to four-year animation degree programs. In addition, each student prepares a professional-level paperwork folio and a personal ID package (stationary, business cards, etc.), and is required to participate in the class preparation for the year-end departmental portfolio show in conjunction with other degree programs. Prerequisite(s): Complete ANIM-124 or CSG-181.

**ANIM-165** Credits: 3

## Motion Analysis for Animation

This course will guide students through the concepts and techniques used to add natural movement to digital animation. Students will work through several motion analysis techniques and apply them to their animations. The techniques explored in this course include rotoscoping, using depth sensing cameras and 3D motion capture. Prerequisite(s): Complete ANIM-145 or ANIM-121.

## ANTECH – Anesthesia Technology (Department 541)

**ANTECH-102** Credits: 2

### Introduction to Anesthesia Technology

This course introduces distinctive areas of anesthesia technology and the role of the technologist. An overview of typical surgical procedures and instrumentation and surgical department orientation are covered as well as medical terminology, blood-borne pathogens and nonpatient-related emergencies. Research papers on related topics and a group project will be required. Guest speakers and site visits to local healthcare/diagnostic facilities may be scheduled. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1).

**ANTECH-117** Credits: 3

### AT Fundamentals 1

Students are introduced to the surgical suite and the typical daily duties of an anesthesia technologist. Didactic as well as laboratory instruction are provided to supply the student with the required theoretical principles of the profession. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1). Complete ANTECH-102, and BIOSCI-177 or BIOSCI-201.

**ANTECH-118** Credits: 3

### AT Instrumentation 1

The primary focus of this course is the anesthesia machine. However, all ancillary equipment, including but not limited to gas cylinders, hospital supply lines, ventilators and absorbers, will also be covered. The setup, calibration, operation, basic troubleshooting, maintenance and safety checks for each is taught. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1). Complete ANTECH-102.

**ANTECH-120** Credits: 2

### AT Clinical Procedures

This four-week course is the student's first opportunity to observe and gain experience in a healthcare facility. Twelve hours per week are scheduled in the hospital setting under direct supervision. Students will observe all procedures and may begin to assist in nondirect patient duties. Students experience various AT environments as scheduled. An additional four hours per week are required for on-campus lectures/discussions. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1). Complete ANTECH-117 and ANTECH-118.

**ANTECH-133** Credits: 3

## Anesthetics

The clinical importance of drug delivery is presented with an emphasis on the most commonly administered anesthetics, as well as other perioperative drugs. Additionally, the federal drug approval processes, various delivery methods, dose calculations and a review of the nervous system are presented. Prerequisite(s): Complete ANTECH-102.

**ANTECH-137** Credits: 3

## AT Fundamentals 2

The concepts learned in ANTECH-117 will be expanded upon. Focus will be on the various types of surgical procedures, including emergency situation management and how the role of the anesthesia technologist varies in each. Patient transport, monitoring and positioning will be stressed. Prerequisite(s): Complete ANTECH-120.

**ANTECH-138** Credits: 3

## AT Instrumentation 2

This course is a continuation of ANTECH-118 and expands upon the scope of anesthesia instrumentation. Various pieces of airway equipment, monitoring devices, point-of-care testing analyzers, and cleaning and disinfection of anesthesia equipment will be discussed and demonstrated. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Complete ANTECH-120.

**ANTECH-139** Credits: 3

## Anesthesia Technology Clinical Experience

This course presents students with their first opportunity in a direct patient care setting while beginning to perform the duties of an AT. Students will be able to correlate their didactic and laboratory classes with the day-to-day duties of an anesthesia technologist. Prerequisite(s): Complete ANTECH-120.

**ANTECH-185** Credits: 2

## Anesthesia Technology Clinical Seminar

Students discuss with other students the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics as well as a review of the written journal detailing the clinical phase of instruction. This course will help to prepare students for the written examinations that will lead to credentialing in AT. Guest speakers may be scheduled. Resume writing and interview skills will be covered. Prerequisite(s): Complete ANTECH-139.

**ANTECH-186** Credits: 4

## Anesthesia Technology Clinical Experience

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the clinical setting. A written journal detailing the clinical phase of instruction will be required. Prerequisite(s): Completion of or currently enrolled in ANTECH-185.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

### **ANTECH-187 Credits: 4**

#### **Anesthesia Technology Clinical Experience**

This course is a continuation of ANTECH-186 and provides the practical application to perfect skills and knowledge through a wider range of cases. Students begin to take a more active and responsible part in the day-to-day tasks associated with their clinical duties. A written journal detailing the clinical phase of instruction will be required.

### **ARCHT – Architectural Technology (Department 614)**

### **ARCHT-101 Credits: 4**

#### **Architectural Theory and Drawing 1**

This course introduces students to the architectural process and the basic skills required of the technician, such as architectural lettering, freehand sketching and reading architectural drawings. Students are also introduced to the computer as a tool to be used in architectural projects.

### **ARCHT-103 Credits: 5**

#### **Architectural Theory and CADD 3**

Students are expected to continue developing their skills in architectural design, detailing, sketching and computer applications. They will further explore the design process and be introduced to site planning and architectural design and development principles. The emphasis in construction documentation, detailing and building information modeling will be on commercial construction systems, such as reinforced concrete and steel. Computer work will include expanded applications for CADD modeling and presentation programs. Prerequisite(s): Complete ARCHT-109.

### **ARCHT-104 Credits: 5**

#### **Architectural Theory and CADD 4**

Students are expected to use the knowledge gained in previous courses in the development of a design project of their own choosing and the associated construction documentation. Students will be expected to use the computer in the development of at least 75% of this final project. Additional computer work will include integration and budgeting, estimating, and specification writing assignments in ARCHT-141 Architectural Practices and Procedures. Prerequisite(s): Complete ARCHT-103.

### **ARCHT-105 Credits: 2**

#### **Architectural History**

This course offers an introduction to the field of architecture. An appreciation for architecture is developed through an overview of architectural history and an analysis of architectural design and construction concepts that have been applied to buildings from the Egyptian period through the present time and into the future.

### **ARCHT-107 Credits: 2**

#### **Building Estimating**

This course introduces the student to Building Estimating. It covers basic techniques, practices, procedures of “quantity takeoffs,” and calculating material and labor requirements for residential and commercial building construction. The course also reviews design, bidding and contract administration phases of a project, including introductory aspects of project scheduling and construction management. Prerequisite(s): Complete ARCHT-109.

### **ARCHT-110 Credits: 2**

#### **Computer Applications for Architecture**

This computer applications course is designed to provide students with word processing, spreadsheet, and PowerPoint and internet skills used in the field of architecture. Additionally, the course is designed to introduce students to AutoCAD and the interface of the software with the MS Windows environment and the internet.

### **ARCHT-112 Credits: 4**

#### **Architectural Theory and CADD 2**

The second of four studio courses that make up the core of the Architectural Technology program. Students continue developing their skills in architectural drafting, sketching and 2D architectural computer applications. The early stages of the design process, use of architectural reference materials for research and presentations are covered. Universal design and energy responsive design are introduced with emphasis on wood and masonry construction. Prerequisite(s): Complete ARCHT-101. Must be admitted to the Architectural Technology program (10-614-1).

### **ARCHT-120 Credits: 3**

#### **Structural Systems and Components**

The main objective of this course is to identify structural systems and explain how they function. Emphasis is placed on the relationship between component parts and the structure as a whole. This is accomplished through the use of descriptions, computations and analysis. Prerequisite(s): Complete ARCHT-101.

### **ARCHT-121 Credits: 2**

#### **Architectural Materials and Methods 1**

ARCHT-121 is a detailed examination of light wood frame construction – foundations, floors, walls, roofs and finishes. Topics include construction details and sequencing, documentation with wall section and framing plan, loads, load paths, member sizing, UDC requirements, water penetration, and transfer of heat, air, and water vapor.

### **ARCHT-122 Credits: 3**

#### **Architectural Materials and Methods 2**

ARCHT-122 covers the common materials and methods of commercial construction including masonry, heavy timber, structural frames, steel, site-cast and precast concrete, deep foundations, cladding, and low-slope roofs. The course covers the general structural behavior of each of these systems. It covers how assemblies control the

flow of liquid water, heat, air and water vapor, as well as fire ratings and other applicable requirements of the International Building Code. Documentation includes detailed sections, framing plans and roof plans. Prerequisite(s): Complete ARCHT-121.

### **ARCHT-131 Credits: 2**

#### **Mechanical and Environmental Systems 1**

This course is an introduction to the broad field of mechanical systems as they relate to building design. It will provide students with the information and tools they require to assess the need for those systems in buildings. Emphasis is on understanding the fundamentals of heat transfer, thermal properties, building component locations, and the interrelationships of mechanical systems and building. Students will be expected to use the knowledge gained to read and interpret HVAC drawings. Prerequisite(s): Complete ARCHT-109.

### **ARCHT-132 Credits: 2**

#### **Mechanical and Environmental Systems 2**

A course designed to teach students the basic concepts of plumbing, electrical illumination, fire protection and acoustical systems as they pertain to human comfort and safety in buildings. The student will develop the ability to produce architectural/mechanical drawings and to perform initial calculations for sizing water supply systems, electrical systems and lighting layouts. Prerequisite(s): Complete ARCHT-103 and ARCHT-131.

### **ARCHT-141 Credits: 2**

#### **Architectural Practices and Procedures**

This course introduces students to the practice of architecture. It reviews in some detail the AIA documents and procedures used in the design and construction of buildings as they proceed through an architectural office, from initial design concept, to construction documentation, to final construction. The possible roles the architectural technician may play in this process are explored. Prerequisite(s): Complete ARCHT-103.

### **ARCHT-150 Credits: 2**

#### **Introduction to Revit**

This course introduces the student to 3D computer drafting and BIM (Building Information Modeling) using Revit software. It builds on students' base knowledge of industry standard working drawings and construction materials as the basis for developing Revit models. The student will learn how to construct Parametric drawings for a building or structure; including Plans, Elevations, and Sections, as well as Axonometric views. Annotation strategies, such as Dimensioning and Text will also be covered. Employing title block templates and sheet composition, students will prepare industry standard drawing sets for presentation. Prerequisite(s): Complete ARCHT-101, CIVIL-102 or INDSGN-102.

# ART – AUTO2

## ART – ART (Department 815)

**ART-201** Credits: 3  
**Understanding Art**

This is a survey course with emphasis upon painting, sculpture and architecture. Major topics include art forms and styles, contributions and achievements of periods in the development of Western art, and world art styles.

**ART-202** Credits: 3  
**Renaissance-Modern Art and Architecture**

This art history class will survey art making through its historical, religious, social and political contexts in Western civilization from the Renaissance period (c. 1400 AD) through the Modern Age. Major focus will be placed on how cultural and religious values during the historical periods under study are reflected in art, and the artistic significance of the art of these periods to our considerations of art and culture today.

**ART-203** Credits: 3  
**Ancient to Medieval Art and Architecture**

This art history class will survey art making through its historical, social, religious and political contexts in Western civilization from the Prehistoric period through the Middle Ages. Major focus will be placed on how cultural and religious values during the historical periods under study are reflected in art, and the cultural significance of the art of these periods to our considerations of art and culture today.

**ART-204** Credits: 3  
**Drawing From Observation**

The goal of this course is to explore the process of drawing as a way of seeing, investigating and experiencing. The student learns to use line, shape, value, texture, space, proportion and composition while at the same time striving for increased eye-hand coordination. The course places primary emphasis on depicting forms in space through the observational drawing of objects and self-portraits. While experimentation and imaginative problem-solving are important and essential aspects of the course, the main thrust of the course is analytical seeing and drawing while using a variety of black-and-white media.

## AUDIO – Audio Production (Department 701)

**AUDIO-100** Credits: 1  
**Introduction to Audio Software**

Introduction to music technology is a lab introducing the basics of software programs: Finale, Logic and Pro Tools in music composition, music production and audio recording focusing on the recording, and manipulating midi and audio.

**AUDIO-102** Credits: 3  
**Techniques of Sound Recording**

Studio recording is the focus of this course. The increasing use of electronic amplifying/recording equipment in the field of music

necessitates that musicians have basic knowledge of the hows and whys of sound and recording equipment. Microphone selection and placement, signal flow, and signal processing during tracking and mixing process will have a central focus in lecture and lab hours. Prerequisite(s): Completion of or currently enrolled in AUDIO-100.

**AUDIO-103** Credits: 3  
**Recording Live Concerts**

Recording Live Concerts is a lecture/lab for the audio engineer teaching the elements of professionalism, the technical aspects of signal flow, microphone selection, and placement and mixing, specifically pertaining to the live music environment. Prerequisite(s): Completion of or currently enrolled in AUDIO-100.

**AUDIO-111** Credits: 1  
**Advanced Audio Software**

Advanced Music Software offers an in-depth, practical study and application of current industry standard digital audio workstation music software programs. Prerequisite(s): Complete AUDIO-100 or MUSIC-113.

**AUDIO-114** Credits: 2  
**Critical Listening of Sound/Music**

This course introduces ear training and critical listening from the perspective of the audio engineer including frequency recognition and contemporary production techniques. The student will learn to aurally analyze and identify contemporary popular song forms and production styles used. Prerequisite(s): Complete AUDIO-100 and MUSIC-148.

**AUDIO-116** Credits: 3  
**Advanced Techniques/Sound Recording**

This course builds on the knowledge of the Techniques of Sound Recording in the first semester. Emphasis is placed on creating stereo and surround sound, mixing and mastering. Prerequisite(s): Complete AUDIO-102 or MUSIC-154.

**AUDIO-117** Credits: 3  
**Sound Reinforcement**

Sound Reinforcement provides the student with both a theoretical and practical background in live sound reinforcement. Emphasis is placed on both indoor and outdoor sound reinforcement applications. The components of the sound system are examined in detail and are then utilized by the student in providing live sound for MATC concerts.

**AUDIO-118** Credits: 2  
**Studio Management and Design**

Studio Management and Design covers the fundamentals of basic studio operations including accounting, client relations, staff, advertising and equipment management. Strong emphasis is placed on scheduling, promotion and marketing, and interpersonal relationship communications. Also covered are the basic elements of studio construction, room acoustics and project studio acoustic treatments. Prerequisite(s): Complete AUDIO-102.

**AUDIO-120** Credits: 3  
**Audio Production for Video Media**

This is a lecture/lab covering the issues of audio for film including ADR, Foley, library sound effects, sound effect creation and enhancement, field recording, managing sync dialog, environmental ambiance, and using music libraries and original music. Prerequisite(s): Complete AUDIO-100.

**AUDIO-125** Credits: 1  
**Advanced MIDI Recording**

Advanced MIDI Recording covers the development, implementation, theory and uses of MIDI equipment. The practical operation of MIDI hardware and software of several types is learned through lecture demonstrations and project assignments. Prerequisite(s): Complete AUDIO-100.

**AUDIO-126** Credits: 2  
**Electronics for Audio Engineers**

Students will learn the principles of electronic technology with an emphasis on applications to audio engineering both in theory and practice. Prerequisite(s): Complete AUDIO-102 or MUSIC-154.

**AUDIO-127** Credits: 3  
**Mastering for Media**

This is an introduction to the theory and practical approach to recording audio for gaming and web applications. Prerequisite(s): Complete AUDIO-102.

**AUDIO-128** Credits: 3  
**Final Project-Field Work**

This is the student's recording project of their choosing of any of the audio disciplines including in studio multi-track recording, live concert recording, sound for film, gaming or web interactive audio. From concept to completion, the student will notate, process and journal the details in creating the audio recording. Prerequisite(s): Complete AUDIO-116.

**AUDIO-130** Credits: 1  
**Ableton Live**

This course looks into how to compose, produce and perform original music using Ableton Live. Prerequisite(s): Complete AUDIO-100.

## AUTO1 – Auto Maintenance Technician (Department 404)

**AUTO1-300** Credits: 2  
**Express Service**

This course introduces the student to automotive express and maintenance services as it relates to the auto technician. Use of electronic service manuals, service bulletins and online training will be covered. Students will perform express service duties including wheel and tire services and pre-delivery procedures.



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**AUTO1-302 Credits: 2**  
**Powertrain Maintenance and Light Repair Fundamentals**

The fundamentals of design, construction and operation of automotive engine and drivetrain components are studied. Discussions, lectures and demonstrations pertain to the diagnosis, maintenance and light repair of these units.

**AUTO1-304 Credits: 4**  
**Powertrain Maintenance and Light Repair Lab**

Instruction is given in the diagnosis, inspection, maintenance and light repair of automotive engine and drivetrain components. Practical lab exercises are performed on late-model vehicles or lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTO1-302 and AUTO1-306.

**AUTO1-306 Credits: 2**  
**Heating and Air Conditioning Fundamentals**

Construction and operation of automobile air conditioning systems are studied through lecture and demonstration. Service, repair, testing, diagnosis and recovery/recycling are performed on automobile conditioning systems. Upon successful completion of the CFC unit, a state certificate will be issued.

**AUTO1-308 Credits: 2**  
**Brake and Steering Suspension Fundamentals**

The fundamentals of design, construction and operation of automotive brake and steering/suspension components are studied. Discussions, lectures and demonstrations pertain to the diagnosis, maintenance and repair of these units.

**AUTO1-310 Credits: 4**  
**Brakes and Steering Suspension Lab 1**

Instruction is given in the diagnosis, inspection, maintenance and repair of automotive brake and steering/suspension components. Practical lab exercises are performed on late-model vehicles or lab mock-ups.

**AUTO1-312 Credits: 2**  
**Brakes and Steering Suspension Lab 2**

Construction, operation, service and testing of automotive safety restraint systems (SRS), steering column, electronic suspension and anti-lock brake systems are studied through lecture and demonstration. Service and testing are performed on these components and on late-model vehicles.

**AUTO1-314 Credits: 2**  
**Electrical and Electronic Fundamentals**

The fundamentals of automotive electricity and the design, construction, and operation of automotive electrical and electronic systems and components are studied. Discussions and lectures pertain to the diagnosis and repair of these systems and units.

**AUTO1-316 Credits: 4**  
**Electrical and Electronic Lab**

Instruction is given in the diagnosis, inspection and repair of automotive electrical and electronic systems and components. Practical lab exercises

are performed on late-model vehicles or lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTO1-314.

**AUTO1-318 Credits: 2**  
**Auto Instrumentation and Accessories**

Construction, operation, service and testing of automotive instrumentation and accessories are studied through lecture and demonstration. Service and testing are performed on these components and on late-model vehicles. Prerequisite(s): Completion of or currently enrolled in AUTO1-314 and AUTO1-316.

**AUTO1-322 Credits: 2**  
**Engine Control System 1 Fundamentals**

The fundamentals of design, construction and operation of automotive engine control, ignition and fuel systems and components are studied. Discussions and lectures pertain to the diagnosis, maintenance and repair of these units. Prerequisite(s): Complete AUTO1-314, AUTO1-316 and AUTO1-318. Completion of or currently enrolled in AUTO1-324 and AUTO1-326.

**AUTO1-324 Credits: 4**  
**Engine Control Systems 1 Lab**

Instruction is given in the diagnosis, inspection and repair of automotive engine control, ignition and fuel systems and components. Practical lab exercises are performed on late-model vehicles or lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTO1-322.

**AUTO1-326 Credits: 2**  
**Engine Control Systems 2 Fundamentals/Lab**

The principles of operation, construction and servicing of emission controls are studied through lectures, discussions and demonstration. Service and testing techniques are performed on various automobile emission systems and components. Prerequisite(s): Completion of or currently enrolled in AUTO1-322.

## **AUTO2 – Automotive Technology (Department 602)**

**AUTO2-147 Credits: 2**  
**Electrical Systems 2**

This course builds on the knowledge and skills gained in Electrical Systems 1. Students use specialized equipment to diagnose and service electrical and electronic systems. Emphasis will be placed on computer-controlled systems and vehicle communication systems. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151.

**AUTO2-148 Credits: 2**  
**Manual Transmission and Drivelines**

The course covers the operation, diagnosis and repair of manual transmissions, transaxles, differentials, transfer cases, drive axles, four-wheel drive and all-wheel drive systems. Prerequisite(s): Must be admitted to Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151 and AUTO2-147.

**AUTO2-150 Credits: 2**  
**Automotive Fundamentals**

This course provides a foundation for students entering the automotive service industry. Instruction in shop practices, tool usage and safety, maintenance, and minor repair procedures will be performed.

**AUTO2-151 Credits: 4**  
**Electrical Systems 1**

This course introduces the student to basic automotive electrical and electronic circuits. Included are meter usage, electrical system diagnosis and repair. Operation and testing of batteries, starting and charging systems will also be covered. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

**AUTO2-152 Credits: 2**  
**Automotive Climate Control**

This course covers the principles, theory of operation, diagnosis, service and repair of various automotive heating, air conditioning and air delivery systems. Includes preparation for federal certification. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151.

**AUTO2-153 Credits: 3**  
**Alignment, Suspension and Steering**

This course covers the design, construction and operation of various steering and suspension systems used on late model vehicles, including electronic ride control, electric steering and tire pressure monitoring systems. Alignments, diagnosis and repair procedures will be performed. Prerequisite(s): Must be admitted to Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151.

**AUTO2-154 Credits: 2**  
**Fuel Management 1**

This course covers basic engine operation, fuel systems and ignition systems. Diagnosis and repair of these systems will also be introduced. Prerequisite(s): Completion of or currently enrolled in AUTO2-151 and AUTO2-147.

**AUTO2-154 Credits: 2**  
**Fuel Management 1**

This course covers basic engine operation, fuel systems and ignition systems. Diagnosis and repair of these systems will also be introduced. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6)

**AUTO2-155 Credits: 4**  
**Fuel Management 2**

This course builds on the knowledge and skills gained in Fuel Management 1, with emphasis placed on engine sensors, computers and control devices used for electronic engine controls and emissions. Diagnosis and repair will also be covered. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Completion of or currently enrolled in AUTO2-151 and AUTO2-154.



# AUTO2 – AVITEC

## **AUTO2-156 Credits: 4**

### **Fuel Management 3**

This course builds on the knowledge and skills gained in Fuel Management 2, with emphasis on diagnosing advanced engine performance concerns. Direct injection, turbos and variable cam timing will be included. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151, AUTO2-149, AUTO2-154 and AUTO2-155.

## **AUTO2-157 Credits: 4**

### **Engine Concepts**

This course covers the operating principles and construction of internal combustion engines. Disassembly, cleaning, inspection, measuring and reassembly will be included. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151 and AUTO2-147.

## **AUTO2-158 Credits: 4**

### **Auto Transmissions**

This course covers the theory and operation of the automatic transmissions and transaxles. Instruction includes electronic, hydraulic and mechanical systems, diagnosis, and repair. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151 and AUTO2-147.

## **AUTO2-159 Credits: 4**

### **Automotive Brakes**

This course covers the design, construction and operation of various braking systems. Diagnosis, service and repair of disc, drum, power brakes, anti-lock, traction control and stability control are included. Prerequisite(s): Must be admitted to Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151.

## **AUTO2-160 Credits: 3**

### **Automotive Accessories**

This course covers the design and operation of various automotive accessories found on today's vehicles. Diagnosis and repair of these systems will also be covered. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Complete AUTO2-151 and AUTO2-147. Must be employed at an approved automotive repair facility.

## **AUTO2-161 Credits: 3**

### **Express Service**

This course introduces the student to the dealership as it relates to the technician. Use of electronic service manuals, service bulletins and online training will be covered. Students will perform quick-lane duties, wheel and tire services, and pre-delivery procedures. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive Program (10-602-6).

## **AUTO2-164 Credits: 1**

### **Applied Automotive Experience 1**

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provide

occupational experience in the automotive field. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Completion of or currently enrolled in AUTO2-151. Must be employed at an approved automotive repair facility.

## **AUTO2-165 Credits: 1**

### **Applied Automotive Experience 2**

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provide occupational experience in the automotive field. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Completion of or currently enrolled in AUTO2-151. Must be employed at an approved automotive repair facility.

## **AUTO2-166 Credits: 1**

### **Applied Automotive Experience 3**

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provide occupational experience in the automotive field. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Completion of or currently enrolled in AUTO2-151. Must be employed at an approved automotive repair facility.

## **AUTO2-167 Credits: 1**

### **Applied Automotive Experience 4**

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provide occupational experience in the automotive field. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Completion of or currently enrolled in AUTO2-151. Must be employed at an approved automotive repair facility.

## **AUTOBY – Auto Collision Repair/Refinish (Department 405)**

## **AUTOBY-301 Credits: 1**

### **Plastic and Composites Repair**

The use of plastics is commonplace on vehicle construction. Plastics are commonly damaged during a collision, and repairs to the plastic and composites may be required. This course provides the learner with the knowledge, processes and skills required to identify the type of plastic, the possible repair options, the repair techniques and the refinishing options for various types of plastics. Prerequisite(s): Completion of or currently enrolled in AUTOBY-322, AUTOBY-325, AUTOBY-323 and AUTOBY-326.

## **AUTOBY-304 Credits: 1**

### **Basic Auto Mechanical Systems**

This course is designed to develop the ability to interpret automobile drawings and to understand the relation between drawings, basic trade theory and shop operations.

## **AUTOBY-312 Credits: 1**

### **Electrical Servicing for Auto Body Repairing**

Fundamental facts and principles of automotive electricity that apply to auto body repair are presented. Instruction covers such subjects as the storage battery, Ohm's law, and lighting, charging, and ignition circuits.

## **AUTOBY-313 Credits: 1**

### **Intro to Color Match and Aluminum**

Lecture-demonstrations acquaint students with sheet metal preparation and refinishing techniques. Students practice color matching new and weathered finishes as well as sanding, masking, feather-edging, and applying undercoats, sealers, and color coats. Aluminum tools and technique differences are discussed and students will have the opportunity to use the aluminum equipment. Prerequisite(s): Must be admitted to the Auto Collision Repair and Finish Technician (31-405-1) program. Complete AUTOBY-301, AUTOBY-322, AUTOBY-323, AUTOBY-325 and AUTOBY-326. Completion of or currently enrolled in AUTOBY-316, AUTOBY-317 and AUTOBY-315.

## **AUTOBY-314 Credits: 1**

### **Front-End Alignment**

This course covers the diagnosis and correction of steering and alignment problems. Students are instructed in the construction and operation of front-end alignment and wheel-balancing equipment used to correct faults in front-end suspension systems.

## **AUTOBY-315 Credits: 5**

### **Applied Collision Repair 2**

Students are provided further lab experiences in various repairs including work on unibody construction, door locks and window regulators, aligning body components, wiring accessories, wet-sanding, and color mixing, blending and spraying. Trade safety regulations are emphasized. Practical lab exercises are performed on appropriate vehicles. Prerequisite(s): Must be admitted to the Auto Collision Repair and Finish Technician (31-405-1) program. Complete AUTOBY-301, AUTOBY-322, AUTOBY-323, AUTOBY-325 and AUTOBY-326. Completion of or currently enrolled in AUTOBY-316, AUTOBY-317 and AUTOBY-313.

## **AUTOBY-316 Credits: 5**

### **Applied Collision Repair 1**

Instruction includes live shop repairs, body panel repair/replacement, and refinishing/blending on modern vehicles. Non-continuing/current students will be required to schedule and pass a hands-on competency test before the start date of the semester. Schedule with a counselor. Prerequisite(s): Must be admitted to the Auto Collision Repair and Finish Technician program (31-405-1). Complete AUTOBY-301, AUTOBY-322, AUTOBY-323, AUTOBY-325 and AUTOBY-326. Completion of or currently enrolled in AUTOBY-315.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

### **AUTOBY-317** Credits: 2

#### **Frame Measuring and Setup**

Students become familiar with frame and unibody construction, tools and equipment through lectures and demonstrations of straightening techniques on damaged automobiles using dedicated and universal bench measuring systems and conventional equipment. Shop safety is emphasized. Prerequisite(s): Must be admitted to the Auto Collision Repair and Finish Technician program (31-405-1). Complete AUTOBY-301, AUTOBY-322, AUTOBY-323, AUTOBY-325 and AUTOBY-326. Completion of or currently enrolled in AUTOBY-313, AUTOBY-315 and AUTOBY-316.

### **AUTOBY-322** Credits: 4

#### **Sheet Metal Correction and Fundamentals**

The fundamentals of auto body safety regulations, damage analysis, unibody construction, component alignment, plastic filler application, welding and dinging sheet metal damage are studied. Discussion, lectures and demonstrations pertain to these areas of auto body repair. Prerequisite(s): Must be concurrently enrolled in AUTOBY-301, AUTOBY-323, AUTOBY-325 and AUTOBY-326.

### **AUTOBY-323** Credits: 1

#### **Estimating and Damage Analysis**

This course provides the opportunity for the learner to develop skills in auto body construction, model identification, damage analysis, parts sources, handwritten damage reports, computerized damage reports, and removal/installation of bolted on panels. Prerequisite(s): Completion of or currently enrolled in AUTOBY-322, AUTOBY-323, AUTOBY-301 and AUTOBY-326.

### **AUTOBY-325** Credits: 2

#### **Refinishing 1 and Personal Safety**

In this course, learners prepare surfaces to be refinished by utilizing cleaning and sanding while protecting non-refinish areas of the vehicle from overspray and component damage. Existing finish defect and substrate assessment along with primer product choices, buffing, polishing and inspection for final delivery are also introduced. Prerequisite(s): Completion of or currently enrolled in AUTOBY-322, AUTOBY-323, AUTOBY-301 and AUTOBY-326.

### **AUTOBY-326** Credits: 4

#### **Sheet Metal Correction and Refinishing 2**

Techniques of auto body repair are presented, including safety regulations, damage analysis, unibody construction, plastic filler application, welding, and dinging sheet metal damage. Practical lab exercises are performed on lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTOBY-322, AUTOBY-325, AUTOBY-323 and AUTOBY-301.

## **AVITEC – Aviation (Department 486)**

### **AVITEC-302** Credits: 2

#### **Engine Fuel Metering Systems**

Training is provided in the servicing of various types of fuel supply and fuel metering systems. Skills are developed in overhauling, assembling and testing of fuel system components.

### **AVITEC-303** Credits: 5

#### **Powerplant Electrical and Instrument Systems**

Skills are developed in the removal, disassembly, inspection, overhaul, installation, adjustment and systematic troubleshooting of the complete power plant ignition and electrical systems. Equipment manufacturers' service recommendations are stressed in the overhaul of electrical components.

### **AVITEC-304** Credits: 1

#### **Aircraft Induction and Supercharging Systems**

Training is provided in the servicing of various types of fuel supply and fuel distribution systems. Skills are developed in overhauling, assembling and testing of fuel distribution system components.

### **AVITEC-306** Credits: 2

#### **Engine Lubricating Systems**

The construction, function, operating principles and relationship of a complete engine lubrication system to the basic engine are emphasized.

### **AVITEC-315** Credits: 2

#### **Aircraft Reciprocating Engines 1**

Skills are developed and instructions given in the removal, disassembly, cleaning, inspection, repair, assembly, installation, testing and troubleshooting of aircraft engines. Emphasis is placed upon the correct application and use of engine servicing.

### **AVITEC-316** Credits: 4

#### **Aircraft Reciprocating Engines 2**

Students continue the development of skills and knowledge gained in Aircraft Reciprocating Engines 1. Prerequisite(s): Complete AVITEC-315.

### **AVITEC-318** Credits: 2

#### **Aircraft Gas Turbine Engines 1**

Training is given in the correct procedures and practices involved in the overhaul, inspection, maintenance, operation, testing, troubleshooting and servicing of gas turbine engines and their related accessory systems.

### **AVITEC-319** Credits: 5

#### **Aircraft Gas Turbine Engines 2**

Students continue the development of skills and knowledge gained in Aircraft Gas Turbine Engines. Prerequisite(s): Complete AVITEC-318.

### **AVITEC-320** Credits: 4

#### **Aircraft Electrical Systems**

Instruction affords students an opportunity to apply basic electrical principles to problems encountered in the electrical servicing

of airframes. Typical jobs performed are construction of simple/complex circuits and using test equipment to check them.

### **AVITEC-323** Credits: 3

#### **Aircraft Ground Operation and Servicing**

Students learn proper procedures for fueling, moving and securing aircraft. Also studied are proper cleaning and corrosion-control methods for aircraft.

### **AVITEC-340** Credits: 1

#### **Aircraft Welding**

Students study the various welding processes used to fabricate and repair aircraft parts. They also learn to silver solder, braze and weld aluminum and stainless steel used in aircraft. Prerequisite(s): Complete AVITEC-380, AVITEC-381, AVITEC-383, AVITEC-393, AVITEC-323 and AVITEC-382. Then complete either ENG-340 or ENG-195.

### **AVITEC-360** Credits: 2

#### **Propeller Systems**

Training is provided in the removal, installation, routine inspection and maintenance of wood and metal propellers. Causes for rejection of wood and metal propeller types are explained, with attention given to FAA and manufacturers' publications.

### **AVITEC-367** Credits: 3

#### **Composite Structures**

The aircraft composite structure is separated into subassemblies and their related parts. Aircraft woods and fabric coverings are identified and repaired. Major emphasis is given to the maintenance and repair of composite structures and aircraft finishes. Prerequisite(s): Complete AVITEC-380, AVITEC-381, AVITEC-383, AVITEC-393, AVITEC-323 and AVITEC-382.

### **AVITEC-368** Credits: 3

#### **Aircraft Structures**

The aircraft structure is separated into subassemblies and their related parts. Major emphasis is given to the maintenance and repair of sheet metal structures.

### **AVITEC-370** Credits: 5

#### **Aircraft Instrument, Control and Warning Systems**

The construction, operation and installation of the instruments present in aircraft are studied. Students then apply the knowledge of theory and operation of instruments to the typical jobs included in routine line maintenance.

### **AVITEC-371** Credits: 1

#### **Aircraft Instrument, Control and Warning Systems**

Students apply knowledge of theory and operation of instruments to typical jobs included in routine line maintenance. Prerequisite(s): Complete AVITEC-380, AVITEC-381, AVITEC-383, AVITEC-393, AVITEC-323 and AVITEC-382.

# AVITEC – BARBER

**AVITEC-372** Credits: 4

## **Hydraulic and Pneumatic Power Systems**

The principles of aircraft hydraulic and pneumatic systems are explained. The operation of hydraulic and pneumatic landing gear systems, as well as wing flap systems, is stressed. The construction and servicing of landing gear wheels, brakes, tires, shock struts and auxiliary wheels are emphasized.

**AVITEC-376** Credits: 4

## **Airframe Maintenance**

The methods and techniques of airframe assembly and disassembly are explained. The student learns to select and use FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals and publications, and related federal aviation regulations. Prerequisite(s): Complete AVITEC-380, AVITEC-381, AVITEC-383, AVITEC-393, AVITEC-323 and AVITEC-382. Then complete either ENG-340 or ENG-195.

**AVITEC-380** Credits: 1

## **Basic Physics**

The basic principles of simple machines, heat, sound and fluids are presented and applied to aircraft systems. Additionally, the theory of flight as applied to both fixed and rotary wing aircraft is studied.

**AVITEC-381** Credits: 3

## **Basic Electricity**

The basic principles of DC and AC electricity are presented and applied to aircraft systems. Topics include electron theory, sources of electricity, and measurement of current, voltage, resistance and power.

**AVITEC-382** Credits: 3

## **Aircraft Materials and Their Inspection**

Emphasis is placed on the properties of materials used on aircraft and on their inspection. Also discussed are the various types of fasteners used. Time is also spent on fluid lines and fittings.

**AVITEC-383** Credits: 1

## **Aircraft Maintenance Pub-Records-Result**

The student studies the various federal air regulations that pertain to aviation mechanics and aircraft maintenance and also learns the proper forms and methods of entry for aircraft records.

**AVITEC-393** Credits: 2

## **Mathematics for Aviation Technicians**

Students are given the mathematical skills necessary to successfully perform mechanic duties. Topics covered include roots, powers, exponents, areas, volumes, ratios, proportions, percentages, displacements and algebraic operations.

## **BADM – Business Administration (Department 102)**

**BADM-104** Credits: 3

### **Business Statistics**

A general study will be discussed to interpret areas related to statistics in the business world. Topics include the interpretation and construction of statistical tables and charts, finding the best

estimator of a population (including central values and measures of dispersion), normal distributions, sampling, hypothesis test, probabilities, six-sigma concepts utilized in quality control, and linear regression and correlations. The use of statistical software to facilitate will be discussed. Prerequisite(s): Complete BADM-106. Complete RBUS-102, MATH-107, MATH-123 or any 200-level MATH courses.

**BADM-106** Credits: 3

### **MS Office for Business Applications**

This course provides hand on training in Microsoft Office. The focus will be on the business application for Windows, Excel, Word and PowerPoint. There will be a special emphasis on the use of Excel tools in business.

**BADM-110** Credits: 3

### **Business Communications With Technology**

This course is designed to prepare students to communicate effectively in the digital age. Students will learn the various digital tools that are being used in business communication and collaboration today. Students will demonstrate basic writing skills and grammar in the preparation of effective communications using the various digital communication tools available. Tools will include email, Facebook, instant messaging, internet resources, LinkedIn and various other online communication tools. Students will also demonstrate effective presentation skills that utilize visual aids and digital tools.

**BADM-120** Credits: 3

### **Business Analysis**

An entry-level course designed to introduce students to the tools used in business for financial analysis. Business Analysis provides the students with the basics of ratio analysis, time value of money, risk analysis, capital budget evaluation and financial statement analysis. Prerequisite(s): Complete BADM-106 and complete either ACCTG-110 or ACCTG-111.

**BADM-126** Credits: 3

### **Business Finance**

Primary emphasis is on the role of the financial manager. Special attention is given to ratio and financial statement analysis. The topics of budgeting, working capital management, leverage, and short- and long-term financing are also covered. Prerequisite(s): Complete ACCTG-110 or ACCTG-111, and complete BADM-106 or ACCTG-122.

**BADM-134** Credits: 3

### **Business Organization and Management**

An introduction to business, focusing on a basic understanding of the activities, functions and principles of business enterprises. This course covers the responsibilities and challenges of operating a business. The emphasis is on human relations, management, marketing, finance, labor, franchising, forms of ownership and careers.

**BADM-145** Credits: 3

### **Small Business Management**

A concise examination is made of all phases of managing a small business and isolating

significant problems for solution. Specific problems of the small business firm, such as financing, developing, staffing, etc., are considered and analyzed. Prerequisite(s): Complete BADM-134 or MKTG-102.

**BADM-155** Credits: 3

### **Management Principles**

A comprehensive overview of the functions and principles of management that lead to success in the operating climate of the new millennium. Prerequisite(s): Complete BADM-134, BADM-126 or HEALTH-104.

**BADM-165** Credits: 3

### **Legal Environment of Business**

The course presents the legal concepts governing the conduct of business in the United States from a managerial perspective including contracts, torts, agency and government regulations. The course is designed to provide students with an understanding of the legal process as it applies to managerial and other business problems. As legal rules frequently change, the emphasis will be on developing independent critical thinking skills.

**BADM-192** Credits: 3

### **Risk Management and Insurance**

This course provides an introduction to managing risks in order to maximize the value of a firm. An examination of the types of business loss exposures and their management, with a primary emphasis on insurance, are discussed in an applied approach.

## **BAKING – Baking (Department 314)**

**BAKING-101** Credits: 3

### **Specialty Baking and Pastry Techniques**

This course involves learning techniques such as the preparation of various tart doughs, laminated doughs, pate a choux, sponges, custards, ganache, meringues and holiday specialties. Students use these skills to prepare plated desserts with appropriate garnishes and sauces. Proper use and care of equipment, together with sanitation, are emphasized. Prerequisite(s): Complete BAKING-120, BAKING-122, CULART-118, CULMGT-112 and CULART-100.

**BAKING-107** Credits: 5

### **Cafe Operations**

The Cafe Operations course is designed for students to learn techniques for the operation of a modern cafe/bistro in a hands-on working environment. Training will include the areas of barista, preparation of breakfast pastries, preparation of soups and stocks, front-of-the-house, operation of point-of-sale software system, cashier, and customer service. Emphasis will be on the complete operation of a business. Prerequisite(s): Complete BAKING-108, BAKING-113, BAKING-131, CULART-109, CULART-116, CULART-122 and CULMGT-105.

**BAKING-108** Credits: 2

### **Hotel and Restaurant Dessert Production**

This course covers the preparation and service of hot and cold desserts with focus on individual



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desserts, a la minute preparations, and numerous components within one preparation. Students will learn station organization, timing and service coordination for restaurant dessert production. Products made will include frozen desserts, ice cream, sorbet, glazes, individual plated desserts, and desserts for functions and banquets. During the course, students will develop a dessert menu from the perspective of variety, costs, practicality, and how well it matches the rest of the menu. Prerequisite(s): Complete BAKING-101, BAKING-120, BAKING-122, BAKING-125, BAKING-129, BAKING-130, BAKING-131, CULMGT-105, CULMGT-112, CULART-118 and CULART-100.

### **BAKING-113 Credits: 3**

#### **Cake Decorating, Icing and Fondant**

This course is designed to give students an introduction to the fundamental components of cake construction, and covers basic and advanced decorating techniques that are relevant to the current industry trends. The students gain experience working with a variety of decorating mediums and learn the different options for icings, fillings and sponges. Students learn extensively about buttercream and fondant techniques, including borders, scrolling, and flowers, and how to properly ice and stack cakes with the proper support. Students will also learn how to interact with a client by completing a mock presentation that demonstrates the planning process of an event theme and writing a contract. Prerequisite(s): Complete BAKING-101, BAKING-108, BAKING-120, BAKING-122, BAKING-125, BAKING-129, BAKING-130, CULMGT-112, CULART-118 and CULART-100.

### **BAKING-120 Credits: 3**

#### **Basic Baking Techniques**

This course introduces students to the fundamental concepts, skills and techniques of basic baking, including cookies and bars, pies, doughnuts, quick breads, and yeast dough production. Study of ingredient functions, production identification and weights. Prerequisite(s): Completion of or currently enrolled in CULMGT-112 and BAKING-122.

### **BAKING-122 Credits: 3**

#### **Baking Principles/Ingredient Functions**

In this class, instructors will focus on the primary functions of ingredients in baked goods, with an emphasis on yeast raised dough, sponge dough, straight dough and modified straight dough methods. Students are exposed to chemical, physical and biological leavening principles, as well as the understanding of the characteristics and functions of baking ingredients. Students will study formulas that work on scientific principles and their outcomes.

### **BAKING-125 Credits: 3**

#### **Artisan Breads**

In this class, students will focus on the primary functions of ingredients in baked goods and pastry components with an emphasis on wheat flour, gluten development, eggs, milk products, sugars, chocolate and fruit. Students are exposed to chemical, physical and biological leavening

principles, as well as the understanding of the characteristics and functions of baking ingredients. Students will study topics that work on scientific principles and their outcomes. Prerequisite(s): Complete BAKING-120, BAKING-122, CULMGT-112, CULART-100 and CULART-118.

### **BAKING-127 Credits: 3**

#### **Chocolate, Confections and Sugar Work**

This course introduces students to the principles involved in producing a full range of chocolates and candies using a variety of centers including marzipan, ganache, gianduja sugar centers and jellies. Students learn to use both traditional and contemporary production methods in creating confections by hand and with special equipment. The class includes an introduction to the art of sugar work. Students will learn to properly cook, pour, pull and blow sugar to create artistic showpieces. Design layout and color issues will also be covered. Prerequisite(s): Complete BAKING-101, BAKING-108, BAKING-113, BAKING-120, BAKING-125, BAKING-129, BAKING-130, BAKING-131, CULMGT-112 and CULMGT-105.

### **BAKING-129 Credits: 2**

#### **Healthy and Natural Baking**

This course studies techniques and diets such as gluten-free, reduced-sugar, reduced-fat, vegetarian and vegan. Students will be able to give a verbal evaluation regarding their finished product by explaining what its components are, how it was prepared, and the motivation behind its construction. Basic nutrition principles are reviewed to help students understand healthy baking. Prerequisite(s): Complete BAKING-101, BAKING-120, BAKING-122, BAKING-125, CULMGT-112, CULART-118 and CULART-100.

### **BAKING-130 Credits: 1**

#### **Field Experience in Baking and Pastry Art**

Students work 192 hours as regular employees in baking and pastry arts. The goal of field experience is to give students the opportunity to apply, on the job, the skills learned in the classroom and lab and obtain a broad overview of an entire facility. Prerequisite(s): Complete INTRN-796 with grade of C or higher.

### **BAKING-131 Credits: 2**

#### **Baking and Classical Cakes**

A review of creaming, foaming and blending techniques with an emphasis on preparing simple to complex unfilled cakes, filled cakes and tortes. Topics to be covered include comparison of classical and modern preparations; classical cakes (such as gateaux, St. Honore, Doosh torte, Linzer torte, and Sacher torte); glazed, iced, molded and cream-filled cakes; tortes; and bombes. Prerequisite(s): Complete BAKING-101, BAKING-108, BAKING-120, BAKING-122, BAKING-125, BAKING-130, CULMGT-112, CULART-100 and CULART-118.

### **BAKING-135 Credits: 3**

#### **Baking for Culinarions**

This course is an overview of baking and pastry for culinary students. Students become familiar with baking ingredients, their properties, and

the way in which to scale and measure them. Producing everything from breads and rolls to cakes and pastries, students gain an appreciation for the contributions made by bakers and pastry chefs in food-service settings. Fundamental culinary principles covered include teamwork, professionalism, timing and organization, and safety and sanitation. Prerequisite(s): Complete CULMGT-112.

## **BARBER – Barber (Department 502)**

### **BARBER-316 Credits: 1**

#### **Advanced Barber Theory**

This course presents the theory related to practical subjects: men's hair replacement methods and hair goods, electricity, and light therapy. Students participate in small and large group activities, in class, and internet assignments. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

### **BARBER-322 Credits: 1**

#### **Intermediate Barber Guest Services**

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, roller set, blow dry/iron curl, thermal press, permanent wave, and relax clients' hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

### **BARBER-336 Credits: 1**

#### **Introduction to Barber Theory**

Presents the theory in sterilization, sanitation, disinfection, laws and rules, and professional ethics as it relates to the Barber profession. Students admitted in individual, group and online activities. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

### **BARBER-337 Credits: 2**

#### **Intro to Barber Haircutting**

Introduces basic fundamentals and related theory of core barber haircutting skills, including the proper use and care of cutting equipment. Students practice on mannequins and models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

### **BARBER-338 Credits: 1**

#### **Barber Chemical Relaxing**

Presents techniques for relaxing and texturizing naturally curly hair. Retouch, virgin and freehand applications are stressed. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

### **BARBER-341 Credits: 2**

#### **Shaving/Facials**

Introduces the theory and practical skills of male facials and shaving with a straight-edge razor. Proper technique and safety are stressed. Students practice on mannequins, classmates and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).



# BARBER – BIOSCI

## **BARBER-344** Credits: 1

### **Intermediate Barber Theory**

Presents theory related to wet and thermal styling, permanent waving, relaxing, and tinting. Client consultation is also covered. Students participate in individual, group and online activities. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

## **BARBER-345** Credits: 2

### **Intermediate Barber Haircutting**

Students enhance skills learned in Introduction to Barber Haircutting. Beard trimming and razor haircutting is introduced, and speed and efficiency are encouraged. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300 and BARBER-336.

## **BARBER-346** Credits: 1

### **Barber Permanent Waving**

Introduces wrapping and application procedures for the permanent wave service. Students practice sectioning and winding permanent rods on mannequins. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300 and BARBER-336.

## **BARBER-347** Credits: 1

### **Intro to Barber Hairstyling**

Presents various techniques for basic thermal styling using the blow dryer, curling iron and flat iron. Proper parting and sectioning are stressed. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

## **BARBER-348** Credits: 2

### **Intro to Barber Guest Services**

Introduces students to the barbering/stylist environment. Students practice barbering skills under the guidance of a licensed instructor. Receptionist duties, people skills and professionalism are also studied. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300, BARBER-336, BARBER-347, BARBER-341 and BARBER-337.

## **BARBER-349** Credits: 1

### **Advanced Barber Haircutting**

Students hone skills previously learned in Barber Haircut courses. Clipper designs, afros, fauxhawks and current trends are also covered. Students practice on mannequins, classmates and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-348 and BARBER-345.

## **BARBER-350** Credits: 2

### **Barber Hair Tinting**

Introduces various application procedures for oxidative and non-oxidative tints. Highlighting and bleaching techniques are also covered. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300, BARBER-336, BARBER-338, BARBER-346 and BARBER-344.

## **BARBER-351** Credits: 1

### **Advanced Barber Hairstyle**

Students enhance skills learned in Introduction to Barber Hairstyling. Wet styling techniques are also introduced. Students practice roller sets, pin curls and finger waves on mannequins. Prerequisite(s): Must be admitted to Barber program (31-502-5). Complete BARCOS-300, BARBER-336 and BARBER-347.

## **BARBER-352** Credits: 2

### **Barber State Board Review**

Presents a review of the theory and practical skills acquired throughout the program. Prepares students for successful completion of the Wisconsin barber licensing exam. Students pack an exam kit, take a mock practical exam and complete a final theory exam. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-318, BARCOS-319, BARBER-322, BARBER-349, BARBER-350 and BARBER-351.

## **BARBER-353** Credits: 2

### **Barber Externship**

This course reviews hair cutting techniques learned in previous Barber hair cutting courses. Students prepare mannequins for the state board exam. Students practice skills on available models and mannequins: Speed and efficiency are stressed. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-349, BARBER-322 and BARBER-350.

## **BARBER-354** Credits: 1

### **Advanced Barber Guest Services**

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-322, BARBER-349, BARCOS-319, BARBER-350 and BARBER-318.

## **BARCOS – Barber/ Cosmetology (Department 502)**

## **BARCOS-300** Credits: 2

### **Shampoo and Scalp Treatments**

Presents the theory of and practical skills in hair/scalp cleansing techniques, scalp massage therapy and professional products for various hair and scalp conditions, including hair pieces and goods. Students practice shampooing, massage and conditioning techniques during class on classmates and hair goods. Prerequisite(s): Must be admitted to the Cosmetology (31-502-1) or Barber (31-502-5) programs.

## **BARCOS-319** Credits: 1

### **Natural Hair Care and Braiding**

Students learn how to care for natural, curly/extremely curly textured hair; the history of African hair braiding and basic

braiding techniques; and apply skills learned on mannequins and available models. Prerequisite(s): Must be admitted to the Barber (31-502-5) or Cosmetology (31-502-1) programs.

## **BARCOS-324** Credits: 1

### **Business Skills for Barber/Cosmetologists**

Introduces verbal and nonverbal communication concepts with emphasis on professional writing and speaking skill development. Students write a resume, make presentations, practice job interviewing and make positive public contacts. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **BARCOS-330** Credits: 2

### **Business Management Skills for Barber/ Cosmetologists**

Introduces the fundamental knowledge required for lawful and effective salon practice and management, including Wisconsin state laws and regulatory rules. Students practice developing skills in large and small group work. Prerequisite(s): Must be admitted to the Cosmetology (31-502-1) or the Barber (31-502-5) programs. Complete BARCOS-324.

## **BARCOS-333** Credits: 3

### **Barber/Cosmetology Instructor Techniques Part 1**

This course is designed to develop the knowledge and skills required to teach barbering and cosmetology. It covers the following: communication, adult learning styles, developing lesson plans and presentation styles, using audio-visual equipment, and questioning techniques. Emphasis is placed on the development and presentation of state board lesson plans, as well as time outside of course hours for classroom observation. Prerequisite(s): Must have a valid practitioners' license and basic computer skills.

## **BARCOS-334** Credits: 3

### **Barber/Cosmetologist Instructor Techniques Part 2**

Instruction focuses on development of evaluation tools for classroom use, analyzing and development of classroom management techniques, the use of copyright laws in developing educational material, and writing a resume and cover letter. The safe use of products and chemicals used in the industry/classroom is studied and stressed. The student will develop theory and practical lesson plans to present in the classroom under the supervision of a licensed instructor. Prerequisite(s): Complete BARCOS-333.

## **BAS – Building Automated Systems (Department 481)**

## **BAS-140** Credits: 3

### **Building Systems 1**

Course examines mechanical building systems and operations related to heating, ventilation, air conditioning equipment, and water systems. Course learning outcomes shall apply HVAC systems to controlling building environments. Learners will gain knowledge and skills of

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systems and controls which create a healthy and productive environment in commercial and industrial buildings.

### **BAS-141** Credits: 2 **Building Systems 2**

Course examines building lighting, alarms, security, network access and building envelope systems. Learners will apply course concepts to the JCI Metasys system extended architecture for managing building operations.

### **BAS-142** Credits: 1 **Measurement and Verification**

Course examines the benefits of performing measurement and verification, as well as testing procedures, tools and equipment, instrumentation used, and how to interpret data. Learners will explore different methods of measuring and verifying energy savings. The International Performance Measurement and Verification Protocols (IPMVP) will be covered. Learning outcomes include hands-on experience using kWh meters, energy management systems and data loggers. Concepts will be applied to the process of verifying that energy management projects are working. Course reinforces documentation, communication, project management, and computer skills including word processing and spreadsheets.

### **BAS-143** Credits: 2 **Electrical Concepts/Control 1 ABS**

Learners will explore how to apply basic electrical concepts to building automated systems control. Course examines basic electrical theories, electrical symbols, line and ladder diagrams, wiring schematics, DC and AC circuits, and applies these to building automated systems control. Control theories will be applied to job duties and tasks performed on building automated systems.

### **BAS-144** Credits: 2 **Control Theory 2**

Course builds upon the electrical concepts learned in Control Theory 1 and examines control systems used in heating, ventilation and air conditioning systems. Learning outcomes include control system submittals, sequence of operations, system architecture, control languages and commissioning controls. Control theories will be applied to both HVAC and water systems. Learners will apply course concepts to the JCI Metasys system extended architecture for managing building operations. Prerequisite(s): Complete BAS-143.

### **BAS-145** Credits: 2 **Control Theory 3**

Course examines control theories for DOC technologies, lighting, alarms, security and building envelope technologies used in various automated systems. Programmable controls and graphical interfaces will be introduced. Hands-on learning lab simulations will build skills and help apply concepts to job duties and tasks. Prerequisite(s): Complete BAS-143 and BAS-144.

### **BAS-148** Credits: 4 **Automated Building Control Systems**

Course examines JCI Metasys, IVUE Carrier, and Trane Tracer building automated control system technologies. Learners will compare systems and apply concepts to managing automated building control systems. Hands-on learning lab for the Metasys system will help learners build skills in writing, revising and verifying programs. Prerequisite(s): Complete BAS-140, BAS-141, BAS-142, BAS-143, BAS-144 and BAS-150.

### **BAS-149** Credits: 4 **Networking Automated Building Systems**

Course examines servers, network servers and other programs; virtual area networks; wireless controls; and building automatic control networks (BACNET) and LON system architectures.

### **BAS-150** Credits: 2 **Energy Auditing**

Learning outcomes include exploring the process and requirements for completing an energy audit, examining the ASHRAE levels of audits, and relating these to the job duties and tasks performed for building automated control systems. Learners will complete an ASHRAE Level 1 energy audit project as a foundation for developing skills needed for automated building systems related careers.

### **BAS-151** Credits: 2 **Commissioning**

Course explores commissioning-related job duties and tasks involved in starting up new automated building systems and controls. Course learning outcomes include applying the commissioning process to automated building systems, examining commissioning-related roles and responsibilities, exploring the benefits of commissioning, and how these relate to energy management using functional performance testing (FPT) and construction checklists in the commissioning process.

### **BAS-153** Credits: 1 **ABS Capstone Project Course**

Course provides a capstone project for automated building systems control. Learners will identify, plan and execute a project in one of the following areas: energy auditing, commissioning, fire/security systems, controls technologies or systems technologies. Strategies for training owners and operators will also be explored. Other capstone projects may be done with preapproval by the department. In addition, an optional industry-based internship may be substituted in lieu of a project. Prerequisite(s): Complete BAS-150.

## **BIOSCI – Biology (Department 806)**

### **BIOSCI-177** Credits: 4 **General Anatomy and Physiology**

This course examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach,

the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare healthcare professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision-making and professional communication with colleagues and patients. (This course also provides the foundation to, and is a prerequisite for, BIOSCI-179.) Prerequisite(s): Two semesters of high school chemistry or one semester of college chemistry with a grade of C or higher. Completion of or currently enrolled in ENG-195 or ENG-201.

### **BIOSCI-179** Credits: 4 **Advanced Anatomy and Physiology**

Advanced Anatomy and Physiology is the second semester in a two-semester sequence in which normal human anatomy and physiology are studied using a body systems approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuromuscular, cardiovascular and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course. Prerequisite(s): Complete BIOSCI 177 with a grade of C or higher.

### **BIOSCI-189** Credits: 3 **Basic Anatomy**

Examines basic concepts of human anatomy and physiology. Learners explore the structure and function of all body systems.

### **BIOSCI-197** Credits: 4 **Microbiology**

Examines microbial structure, metabolism, genetics, growth, and the relationship between humans and microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry and biotechnology. Prerequisite(s): Complete BIOSCI-177 or BIOSCI-201 with a grade of C or higher.

### **BIOSCI-201** Credits: 4 **Anatomy and Physiology 1**

This is a general course presenting unifying concepts critical to a basic understanding of the human body. Lectures and laboratory studies use models and dissection of specimens to present integumentary, skeletal, muscular, nervous and endocrine systems. Prerequisite(s): Biology or chemistry and English. Biology may be satisfied with one year of high school biology or one semester of college biology. Chemistry may be satisfied with one year of high school chemistry or one semester of college chemistry with a grade of C or higher. Completion of or currently enrolled in ENG-195 or ENG-201.

# BIOSCI – BRHLTH

**BIOSCI-202** Credits: 4

## **Anatomy and Physiology 2**

The cardiovascular, respiratory, digestive, urinary and reproductive systems are studied, utilizing lecture and laboratory procedures to complete the study of the anatomy and physiology of the human body. Prerequisite(s): Complete BIOSCI-201 with a grade of C or higher.

**BIOSCI-220** Credits: 3

## **Introduction to Nutritional Science**

This course is an introductory experience in human nutrition. It is designed to satisfy basic nutritional course requirements for college students entering allied health programs and provide practical and interesting nutritional information for non-health majors as well. This course provides correct, scientifically based information needed to answer basic questions related to nutrition.

**BIOSCI-230** Credits: 1

## **Intro to Nutrition Lab**

This course is a complementary laboratory course to BIOSCI-220, which offers an introductory experience in human nutrition. This course offers a laboratory experience to compliment the basics of nutrition. The concepts covered in the lecture course are explored in greater detail during the lab time using a variety of activities including food experiments, anthropometric measurement, and nutrient analysis and enhanced problem sets.

**BIOSCI-236** Credits: 5

## **Principles of Biology**

This course provides an introduction to the organization of living organisms at the molecular, cellular, organism and ecological levels. Biological principles of inheritance, cytology and metabolism of plants, animals and other organisms will be studied. In addition, an overview of the major organ systems of the human body will be included. Prerequisite(s): Complete ENG-195 or ENG-201 with a grade C or higher.

**BIOSCI-237** Credits: 4

## **Introduction to Biotechnology**

The purpose of this course is to introduce the basic principles of molecular biology used in biotechnology. Emphasis will be on providing students with hands-on experience in areas such as gene expression and regulation, recombinant DNA technology, cloning of genes, isolation, and purification of DNA, and agarose gel electrophoresis of DNA. The course concludes with a consideration of bioethical issues relating to this powerful new technology. Prerequisite(s): Complete BIOSCI-257 and BIOSCI-258.

**BIOSCI-238** Credits: 4

## **Molecular Biology**

Cell structure and function at the molecular level. Flow of material, energy and information within prokaryotic and eukaryotic cells. Prerequisite(s): Complete BIOSCI-197 BIOSCI-257 and BIOSCI-258.

**BIOSCI-239** Credits: 4

## **Genetics**

Genetics is the science of heredity in living organisms. This course will provide an integrated approach introducing the principles, concepts and methods of modern genetics. This course will enable you to understand the molecular basis of genes and Mendelian inheritance, as well as apply genetic problem-solving approaches to biological questions. Prerequisite(s): Complete BIOSCI-257 and BIOSCI-258.

**BIOSCI-241** Credits: 4

## **Pathophysiology**

Pathophysiology provides students with an understanding of the relationship between the mechanisms of disease and normal physiology. Topics include alterations in cellular and genetic mechanisms, metabolic abnormalities, fluid and electrolyte imbalance, infection, immunology and cardiovascular, gastrointestinal, and respiratory and neuromuscular dysfunctions. Prerequisite(s): Complete two semesters of college anatomy and physiology BIOSCI-177 and BIOSCI-179 or BIOSCI-201 and BIOSCI-202 with a grade of C or higher.

**BIOSCI-242** Credits: 4

## **Concepts of Science in Health**

The focus of this course is to provide a basic understanding of the most recent, scientifically based, personal health information such as aging, stroke, cancer, chemical dependency, nutrition, environmental pollution and weight control. Participants analyze their own health-related behaviors and attitudes and are provided with the concepts needed to improve health and well-being.

**BIOSCI-257** Credits: 4

## **Biology I**

This course is the first of a two-course series. This course covers chemistry as it pertains to biology, biochemical principles, cell biology, metabolism, cellular energy, genetics, molecular biology, evolution, and ecology. Prerequisite(s): Complete either CHEM-207, or CHEM-211.

**BIOSCI-258** Credits: 4

## **Biology II**

This course is the second of a two-course series. This course covers a survey of organisms including viruses, bacteria, protist, fungi, plants and animals. It will also cover organ systems biology in animals and specifically in humans. Prerequisite(s): Complete BIOSCI-257.

**BIOSCI-259** Credits: 2

## **Genetics and Genomics**

Genetics and genomics are issues that affect individuals throughout their lifespan. These topics will gain even more importance as we learn more about the genetic basis of medical conditions. Therefore, anyone involved in healthcare will need an understanding about the social, ethical and legal issues of genetics and genomics as well as their underlying scientific principles. This course provides an overview of genetics and genomics while exploring the implications of these topics on the healthcare

setting. The first part of the course concentrates on the basics of genetics and the science behind heritable characteristics. The course goes on to discuss the implications of genomics, concluding with an investigation of the social, ethical and legal issues of genetic technology (cloning for medical and reproductive purposes, genetically modified organisms or GMOs and who owns genetic information. Prerequisite(s): Complete one of the following courses: BIOSCI-177, CHEM-186, BIOSCI-202 or CHEM-208.

**BIOSCI-260** Credits: 3

## **Plagues, People and Power**

This course covers the history of infectious diseases and their impact on human society as well as how human activities have contributed to infectious disease outbreaks. It also examines the potential future impact of infectious diseases. Topics to be covered include historical diseases, emerging and re-emerging infectious diseases, and biological weapons. Prerequisite(s): Complete ENG-195 or ENG-201 (with grade of C or higher) or a satisfactory MATC placement test score.

**BIOSCI-261** Credits: 3

## **Introduction to Pharmacology**

This course introduces the nature of drugs and their mechanisms of action by examining basic concepts on how drugs interact with the human body (pharmacokinetics) and on how the human body alters the effects of drugs (pharmacodynamics). Emphasis is placed on drugs affecting the nervous system, which includes but is not limited to: CNS depressants, CNS stimulants, hallucinogens, narcotic analgesics, sedatives, and autonomic drugs. Along with a few laboratory exercises, this course is designed to have a broad appeal to many science and nonscience majors. The course allows for a review of key topics in general biology, chemistry, anatomy and physiology that supports the study of pharmacology.

**BIOSCI-269** Credits: 1

## **Genetic and Genomics Lab**

Genetics and genomics are issues that affect individuals throughout their lifespan. These topics will gain even more importance as we learn more about the genetic basis of medical conditions. Therefore, anyone involved in healthcare will need an understanding about the social, ethical and legal issues of genetics and genomics as well as their underlying scientific principles. This course is an adjunct to BIOSCI-259 (a two-credit lecture course that provides an overview of genetics and genomics while exploring the implications of these topics on the healthcare setting). This lab course would provide the students with the laboratory component of the technologies discussed in BIOSCI-259. Taken together, the two courses would be the equivalent of a three-credit science class with a lab.

**BIOSCI-280** Credits: 3

## **Applied Nutrition**

Applied Nutrition is a three-credit nutrition class for future health professionals or students who would like to get more education in nutrition and how it affects our health. Topics discussed



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will include lifecycle nutrition and how diet affects the physiology of the body, metabolism, weight management, and food choices and the development of chronic diseases (diabetes, cancer, autoimmune diseases, etc.). Prerequisite(s): Complete BIOSCI-201 or CHEM-207.

### **BNLST-Business Analyst (Department 102)**

**BNLST-121** Credits: 3

#### **Business Analyst Planning and Monitoring**

Instruction in the multiple approaches used for performing business analysis, planning activities and ongoing communication, defining scopes, process improvements, assumptions, constraints, dependencies and the management process.

**BNLST-122** Credits: 3

#### **Business Analyst Essentials**

Provides insight into the business analyst role and profession. Examines career pathways, key concepts, and the underlying competencies describing the behaviors, characteristics, knowledge, and personal qualities that support the practice of business analysis. Students will also be introduced to the Business Analysis Body of Knowledge (BABOK) guide.

**BNLST-123** Credits: 3

#### **Requirements Life Cycle Management**

Prioritize and trace requirements; organize large amounts of data; understand and model requirements using various analysis techniques; and verify, validate and communicate the requirements.

**BNLST-124** Credits: 3

#### **Elicitation Techniques**

Examines one of the five Business Analysis Perspectives (Business Intelligence) and the tasks associated with obtaining information from stakeholders (elicitation), confirming the results, and communicating business analysis information with stakeholders. Introduces the business analysis elicitation techniques of surveys, interviews, observation, workshops, benchmarking, and market analysis.

**BNLST-127** Credits: 3

#### **Requirements Analysis and Design**

Explores the key tasks of Requirements Analysis and Design that business analysts perform to structure and organize requirements discovered during the elicitation activity. Tasks include specifying and modeling requirements/designs, verifying and validating information, defining requirements architecture, defining solution options that meet business needs, and estimating potential value for those solution options. Introduces techniques of use-cases, prototyping, non-functional requirements analysis and acceptance and evaluation criteria. Students will also explore the final perspective of business architecture.

**BNLST-135** Credits: 3

#### **Business Analyst Strategy Analyst**

Identify and define business needs; understand business structure, strategy, and impact of work

efforts; define the importance of vision, strategy, goals, and objectives; and define solution scope. Effectively facilitate change management.

**BNLST-136** Credits: 3

#### **Business Analyst Solution Evaluation**

Students assess organizational readiness by facilitating testing and training of the solution. Emphasizes test plan creation, execution, and facilitation as well as the development of training plans. Prerequisite(s): Complete BNLST-127.

**BNLST-137** Credits: 1

#### **Business Analyst Internship**

A cooperative training program involving actual work experience. Students obtain a position at an approved work station and work under the supervision of a teacher/coordinator. Prerequisite(s): Complete INTRN-796.

**BNLST-138** Credits: 3

#### **Business Analyst Capstone**

This course provides Business Analyst students the opportunity to integrate the knowledge they have obtained throughout their curriculum by demonstrating their proficiency during the entire life cycle of a project. Prerequisite(s): Complete BNLST-135.

### **BRHLTH – Business Related Health (Department 160)**

**BRHLTH-112** Credits: 3

#### **Computerized Medical Billing**

This course introduces students to principles of computerized medical billing using medical office software. Students must possess medical terminology and accounting competencies. Prerequisite(s): Complete OFTECH-104. Completion of or currently enrolled in BRHLTH-125 and BRHLTH-170.

**BRHLTH-124** Credits: 3

#### **Medical Office Terminology 1**

This course presents the principles of medical word construction; emphasizes correct medical word spelling, pronunciation and definition; and introduces terminology specific to various body systems.

**BRHLTH-125** Credits: 3

#### **Medical Office Terminology 2**

This course reinforces correct medical word spelling, pronunciation and definition as studied in BRHLTH-124. Additional terminology specific to various body systems is introduced. Prerequisite(s): Complete BRHLTH-124 with a grade of C or higher.

**BRHLTH-135** Credits: 3

#### **Medical Document Production**

This course is designed to expand the student's medical vocabulary and further develop their skills in keyboarding, transcribing, formatting and editing of researched, dictated and handwritten medical documents. Emphasis is placed on term building and medical accuracy. Prerequisite(s): Complete OFTECH-122 and BRHLTH-125.

**BRHLTH-135** Credits: 3

#### **Medical Document Production**

This course is designed to expand the student's medical vocabulary and further develop their skills in keyboarding, transcribing, formatting, and editing of researched, dictated and handwritten medical documents. Emphasis is placed on term building and medical accuracy. Prerequisite(s): Completion of or currently enrolled in OFTECH-133.

**BRHLTH-140** Credits: 3

#### **Electronic Health Records: Administrative Application**

Students explore the content of the electronic health record through a variety of administrative applications including those related to collection of patient data, documentation, scheduling, coding, insurance claim creation and billing. Medico legal, ethical, and professional use of the protected health information in the electronic health record is addressed. Prerequisite(s): Complete BRHLTH-135. Completion of or currently enrolled in BRHLTH-170.

**BRHLTH-142** Credits: 3

#### **Administrative Procedures for the Medical Office**

Students apply previously learned skills to complete simulated medical office activities (with a medical focus) in a timely, accurate manner. Developing desirable human relations and decision-making skills is emphasized. Microcomputers are used. Prerequisite(s): Complete BRHLTH-125. Completion of or currently enrolled in BRHLTH-135 and BRHLTH-170.

**BRHLTH-170** Credits: 3

#### **Medical Insurance Principles and Coding**

This course presents common health insurance terminology and familiarizes students with basic principles of disease coding and procedural coding from the physician/provider perspective. This is not for experienced coders. Prerequisite(s): Complete BRHLTH-125.

**BRHLTH-174** Credits: 2

#### **Medical Claims Reimbursement**

The course focuses on achieving maximizing reimbursement for the medical office through the evaluation and design of patient financial forms, the maintenance of insurance carrier documentation, and the comparison of manual and electronic billing/claims filing systems. Prerequisite(s): currently enrolled BRHLTH-170.

**BRHLTH-197** Credits: 3

#### **Medical Office Career Investigation**

This course provides students with in-depth exposure to employment in the healthcare office setting. Student will conduct interviews, research into specific medical office careers, prepare a PowerPoint presentation, participate in group and individual work scenario case problems, and prepare an extensive portfolio.



# CABMIL – CHEMT

## CABMIL – Cabinetmaking and Millwork (Department 409)

**CABMIL-300** Credits: 2

### Machine Maintenance/Jigs and Fixtures

Machine maintenance consists of adjusting and maintaining woodworking machinery such as wide-belt sanders, planers, shapers, and band and circular saws. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1).

**CABMIL-303** Credits: 5

### Woodworking 1

Students are introduced to the methods of processing materials using various types of woodworking equipment. An intensive safety program is incorporated into the development and completion of projects. Teamwork is emphasized in the coordination and production of group projects. Organizational skills are developed to prepare students for performance efficiency and quality standards. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Completion of or currently enrolled in CABMIL-304.

**CABMIL-304** Credits: 3

### Woodworking Fundamentals

This course is designed to provide students with woodworking fundamentals including safe operating procedures of woodworking machines, types of wood, adhesives, gluing techniques and preparing wood for construction. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Completion of or currently enrolled in CABMIL-303.

**CABMIL-305** Credits: 5

### Woodworking 2

Students are involved in advanced cabinetmaking and millwork techniques used to produce architectural millwork and cabinets. Metric units of measurement are used to fabricate 32mm system casework. Students learn to set up, run and troubleshoot equipment necessary to produce exacting work. This course prepares the student for an entry-level position in a modern architectural millwork or cabinet shop. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CABMIL-303 and CABMIL-304. Completion of or currently enrolled in CABMIL-306.

**CABMIL-306** Credits: 3

### Advanced Woodworking

This course is designed to provide students with the skills associated with advanced cabinetmaking techniques. Subjects covered include cabinet construction, case construction and 32mm construction. Setup and safe operation of woodworking equipment emphasized. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking

program (31-409-1). Complete CABMIL-303 and CABMIL-304. Completion of or currently enrolled in CABMIL-305.

**CABMIL-340** Credits: 2

### Millwork for Carpenters

This course is designed to teach carpentry students the basic operations of woodworking machines. Students will identify warp in lumber and learn how to surface and cut lumber. Routing and proper clamping methods will be learned, along with proper usage of machines and tools used to make millwork and cabinets. Special attention is focused on safety. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

**CABMIL-341** Credits: 2

### Millwork Techniques

This advanced-level course is a continuation of the course Millwork for Carpenters. The purpose of the course is to advance the student's skills and knowledge of woodworking and cabinetmaking. The construction of cabinets and the application of plastic laminate for countertops will be covered. Prerequisite(s): Complete CABMIL-340.

**CABMIL-353** Credits: 1

### Wood Finishing

The characteristics of supplies used in wood finishing are studied thoroughly. Topics such as the manufacture of stains, shellac, varnishes, wax, lacquers and enamels are covered. Health, safety and general trade practices are also studied.

**CABMIL-355** Credits: 1

### Materials and Construction

The characteristics, manufacture, and uses of the essential materials and supplies used in cabinetmaking are presented. Topics such as physical properties of wood, defects in lumber, shrinkage and warp, lumber grades and sizes, hardware, fasteners, and plastic laminate are covered. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1).

**CABMIL-383** Credits: 2

### Quantity Survey 1

Students are given instruction in identifying dimensions and quantities of parts from furniture and residential woodwork blueprints. Planning, routing and cost estimate procedures are discussed. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CONSTR-380 or CARP-304.

**CABMIL-385** Credits: 2

### Cabinet Detailing

This course provides students with the opportunity to learn how to read blueprints. This includes floor plans, elevations, and sectional and detailed drawings. In addition, basic skills in sketching and drawing are developed. Students will learn how to use basic sketches and drawings in the shop and to communicate with the customer. Prerequisite(s): Completion of or currently enrolled in CABMIL-355.

**CABMIL-386** Credits: 2

### Cabinet Layout

Students develop working and detailed drawings that are used in the shop to produce cabinetry or millwork. Conventional methods used to create drawings are explored to enhance comprehension of the information contained within them. Cut lists and materials lists are then developed from the drawings. Students will make full-sized layouts of their drawings. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CABMIL-385.

## CARP – Carpentry (Department 410)

**CARP-301** Credits: 5

### House Framing

House Framing is a practical course that includes the development of skills in the use and care of carpenter hand tools and portable machines. The fundamental principles of layout and erection of floor decks and walls are practiced in the shop. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

**CARP-303** Credits: 5

### Roof Framing

Roof Framing is designed to give the student practical experience in the layout, cutting and erection of rafters for gable, hip, intersection and gambrel roofs. Layout of equal- and unequal-pitch roofs is included along with framing of dormers and roof openings. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Complete CARP-301 and CARP-304.

**CARP-304** Credits: 3

### House Framing Fundamentals

This course is designed to provide students with the fundamental skills associated with house construction. Subjects covered include safe operating procedures associated with power saws, hand tools, residential house construction techniques, types of wall framing and structural components. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

**CARP-306** Credits: 5

### Exterior and Interior Finishing

Exterior finishing is covered through installation of different types of exterior sidings, trim and window and door units. Interior trim and hardware installation is practiced, along with the layout, fitting and assembly of various wood projects. Prerequisite(s): Complete CARP-301.

**CARP-315** Credits: 1

### Energy Efficiency in Residential Construction

The course provides an overview of key areas that are important to energy efficiency in the construction trades. Topics include energy usage and efficiencies, testing protocols and diagnostic equipment, combustion air exchange, and roles of energy professionals. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Completion of or currently enrolled in CARP-303, CARP-306, CARP-383, CARP-387 and CABMIL-341.

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### **CARP-351 Credits: 1**

#### **Building Materials**

The characteristics, manufacture and uses of the essential materials and supplies employed in the several branches of the construction trades are presented. Such topics as physical properties of wood, defects in lumber, shrinkage and warp, lumber grades and sizes, hardware, and insulation are covered. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

### **CARP-383 Credits: 2**

#### **Quantity Survey**

An estimating course for students in the building trades. It deals with the "taking off" of such carpentry materials as girders, posts, studs, rafters, roof sheathing, shingles, interior trim and drywall. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Complete CONSTR-380 or CARP-380.

### **CARP-385 Credits: 2**

#### **Blueprint Reading 1**

A fundamental course in sketching and blueprint reading designed to help carpenters express themselves and interpret plans on the job. It includes sketching objects using straight and curved lines. Isometric, oblique and orthographic views, and methods of dimensioning are covered. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

### **CARP-387 Credits: 1**

#### **Commercial Blueprint Reading**

A course in general construction, specifications, heavy construction, and commercial blueprint reading and sketching. Emphasis is placed on the structure of typical buildings of different types and on developing communication skills in the reading of plans and specifications. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Complete CARP-385.

## **CHEM – Chemistry (Department 806)**

### **CHEM-110 Credits: 5**

#### **Basic Chemistry**

This course is designed to provide the basic chemistry concepts to prepare students for more advanced science courses. Some of the topics include quantitative skills, atomic and molecular structure, nuclear chemistry, chemical bonding, solutions, stoichiometry, and gas laws. Laboratory experiences are included. This course uses Open Educational Resource in place of a textbook. Students can purchase a printed version of the required chapters at the bookstore or use a free online version.

### **CHEM-186 Credits: 4**

#### **Introductory Biochemistry**

Provides students with skills and knowledge of organic and biological chemistry necessary for application within Nursing and other allied health careers. Emphasis is placed on recognizing the structure, physical properties and chemical reactions of organic molecules,

body fluids and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates and DNA. Prerequisite(s): One year of high school chemistry grade of C or higher, or one semester of college chemistry with a grade of C or higher. Completion of or currently enrolled in ENG-195 or ENG-201.

### **CHEM-200 Credits: 4**

#### **Chemical Science**

Introductory course in general inorganic chemistry designated for the student with little or no previous science training.

### **CHEM-207 Credits: 4**

#### **General Chemistry**

This course provides a foundation in general inorganic chemistry in preparation for a second semester of organic and biochemistry. Specific topics include dimensional analysis, atomic structure, periodic table and properties of elements, compounds, solutions, acids/bases, reactions and equilibrium, oxidation/reduction, and introduction to organic chemistry. Prerequisite(s): Complete CHEM-110 with a grade of C or higher, or one year of high school chemistry with a grade of C or higher.

### **CHEM-208 Credits: 4**

#### **Survey of Biochemistry**

This course provides a basis in organic chemistry needed for understanding biochemistry. Topics in biochemistry include structure and functions of carbohydrates, lipids, proteins, enzymes and nucleic acids; protein synthesis and epigenetic controls; carbohydrate metabolism and energy production; metabolism of proteins and of lipids; relation of central metabolism to health. Prerequisite(s): Complete CHEM-207 or CHEM-211.

### **CHEM-211 Credits: 5**

#### **Chemistry 1**

This course is a study of the basic principles of modern chemistry correlating atomic structure, theories of chemical bonding and reactivity of matter. Laboratory work is included. Prerequisite(s): One year of high school chemistry or one semester of college chemistry with a grade of C or higher. Also, MATH-200 with a grade of C or higher, or a satisfactory MATC placement test score.

### **CHEM-212 Credits: 5**

#### **Chemistry 2**

This course is a study of kinetics, equilibria, acid/base chemistry, thermodynamics, nuclear chemistry, coordination chemistry and electrochemistry. Qualitative analysis is included in the laboratory course. Prerequisite(s): Complete CHEM-211 with a grade of C or higher.

### **CHEM-215 Credits: 5**

#### **Quantitative Chemical Analysis**

This course is a study of the general principles of volumetric and gravimetric analysis, evaluation of analytical data, acidimetry and alkalimetry, redox process, solubility

equilibria, complexation titrations, and optical and electrometric methods. Laboratory work is included. Prerequisite(s): Complete CHEM-212 with a grade of C or higher.

### **CHEM-216 Credits: 5**

#### **Instrumental Analysis**

Instrumental analysis examines the design, construction and use of modern chemical analytical instruments. Topics included are absorption and emission spectroscopy, gas and liquid chromatography, and electrochemical methods. Prerequisite(s): Complete CHEM-212 with a grade of C or higher.

### **CHEM-217 Credits: 3**

#### **Organic Chemistry 1**

Lecture topics include nomenclature, structure, characterization, functional groups, preparations and reactions. A survey is made of stereochemistry, polymers and natural organic products. Practical applications of these topics are included in the laboratory work. Prerequisite(s): Complete CHEM-212 with a grade of C or higher.

### **CHEM-218 Credits: 3**

#### **Organic Chemistry 2**

A second-semester course in organic chemistry that builds upon concepts learned in the first semester. Spectroscopy and the chemistry of oxygen containing compounds are emphasized. Prerequisite(s): Complete CHEM-212 or CHEM-117 with a grade of C or higher.

### **CHEM-219 Credits: 2**

#### **Organic Chemistry Laboratory 1**

Laboratory work focuses on the synthesis and purification of organic compounds illustrating reaction mechanisms. Prerequisite(s): Complete CHEM-212 with a grade of C or higher. Completion of or currently enrolled in CHEM-217 or CHEM-117.

## **CHEMT – Chemical Technology (Department 603)**

### **CHEMT-101 Credits: 2**

#### **Chemical Laboratory/Process Safety**

This course develops the knowledge and skills required to work safely in the chemical laboratory. Among the topics included are the history and application of state and federal regulations pertaining to the workplace, recognition and reduction of chemical and physical hazards, manipulation of glassware and laboratory equipment, handling compressed gas cylinders, and personal protective equipment and practices. Certified Cardiopulmonary Resuscitation for Professional Rescuers and First Aid training are included. Prerequisite(s): Complete CHEM-110, CHEM-211, or both SCIHS-705 and SCIHS-706, or both SCIPH-705 and SCIPH-706 with a grade of C or higher.

# CHEMT – CHILDD

**CHEMT-103** Credits: 2

## Introduction to Chemical Technology

This course introduces students to chemical technology. Students learn to use the fundamental skills needed to work safely and productively in the chemical laboratory. The proper procedures and methods for recording, manipulating and applying data are noted. Measurement of intensive and extensive physical properties of materials using common laboratory instruments is stressed. Spectroscopy and chromatography are introduced.

**CHEMT-105** Credits: 3

## Introduction to Instrumental Methods

Introduction to Instrumental Methods presents the learner with the opportunity to become familiar with the basic uses and operation of modern analytical instrumentation. Real samples will be analyzed using gas and liquid chromatographs. Optical instruments include UV-visible, atomic, atomic emission and fluorescence spectrometers.

**CHEMT-107** Credits: 2

## Industrial Methods of Analysis

Tests and analyses similar to those employed in industry are used to determine the characteristics of raw materials and finished products. Standard and official methods as outlined by ASTM, AOAC, FCC, etc., are used in the testing of petroleum products, metals, ores, foods, soaps and detergents, and water. Instrumental and classical methods are used. Prerequisite(s): Complete CHEMT-105 with a grade of C or higher.

**CHEMT-109** Credits: 3

## Chemical Processes

Chemical Processes focuses on the role, structure and operations of industrial chemical laboratories. The activities, responsibilities and functions of the various business activities are examined from the perspective of a technician working in research and development or technical service laboratory. Prerequisite(s): Complete CHEM-211.

**CHEMT-111** Credits: 5

## General Chemistry 1

A study is made of the basic principles of modern chemistry, correlating atomic structure, the theories of chemical bonding, and the structure and reactivity of matter. Laboratory work is included and demonstrates the principles discussed. Prerequisite(s): Complete one year of high school chemistry with a grade of C or higher, or complete one year of college chemistry with a grade of C or higher.

**CHEMT-112** Credits: 5

## General Chemistry 2

A study is made of kinetics, equilibria, thermodynamics, nucleonics, coordination chemistry, electrochemistry, and topics in organic and biochemistry. Qualitative analysis is emphasized in the laboratory course. Prerequisite(s): Complete CHEMT-111 or CHEM-211 with a grade of C or higher.

**CHEMT-115** Credits: 5

## Quantitative Analysis

A study is made of the general principles of volumetric and gravimetric analysis, acidimetry and alkalimetry, redox process, solubility equilibria, complexation titrations, and optical and electrometric methods. The evaluation of analytical data is stressed. Laboratory work is included. Prerequisite(s): Complete CHEMT-112 or CHEM-212 with a grade of C or higher.

**CHEMT-116** Credits: 5

## Instrumental Analysis

Instrumental Analysis examines the design, construction and use of modern chemical analytical instruments. Topics included are absorption and emission spectroscopy, gas and liquid chromatography, and electrochemical methods. Prerequisite(s): Complete CHEMT-112 or CHEM-212 with a grade of C or higher.

**CHEMT-117** Credits: 3

## Organic Chemistry 1

Lecture topics include the principles of bonding, stereochemistry, mechanisms, kinetics and spectrometry applied to aliphatic and aromatic hydrocarbons and simple mono-functional organic molecules. Prerequisite(s): Complete CHEMT-112 or CHEM-212 with a grade of C or higher.

**CHEMT-118** Credits: 3

## Organic Chemistry 2

A second semester course in organic chemistry that builds upon concepts learned in CHEMT-117. Spectroscopy and the chemistry of oxygen containing compounds are emphasized. Prerequisite(s): Complete CHEMT-117 with a grade of C or higher.

**CHEMT-119** Credits: 2

## Organic Chemistry Laboratory 1

Laboratory work focuses on the synthesis and purification of organic compounds illustrating reaction mechanisms. Prerequisite(s): Completion of or currently enrolled in CHEMT-117 or CHEM-217. Must be admitted to the Chemical Technician program (10-603-1).

## CHILDD – Child Development (Department 307)

**CHILDD-108** Credits: 3

### ECE: Early Language and Literacy

This three-credit course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age.

**CHILDD-110** Credits: 3

### ECE: Social Science, Art and Music

This three-credit course will focus on beginning-level curriculum development in the specific integrated content areas of social studies, art, music and movement (SSAMM) for children from birth to 8 years of age.

**CHILDD-112** Credits: 3

### ECE: STEM

This three-credit course will focus on beginning-level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics (STEM) in children birth to age 8.

**CHILDD-117** Credits: 3

### ECE: Credit for Prior Learning

This three-credit course examines early childhood professional experience for the purpose of receiving credit for prior learning. Course competencies include access needed support services on campus and online; analyze professionalism in the early childhood field; identify core-abilities; identify what a competency is within a course; examine the courses and outcomes of the WTCS Early Childhood Education program; analyze performance assessment; compare professional experience with early childhood competencies; compile materials for performance assessment of course(s); determine plan of action for program completion. Two years in ECE field required. Prerequisite(s): Must be admitted to Early Childhood Education program (10-307-1) or the Child Care Services program (31-307-1) and two years in early childhood education field and registry recipient.

**CHILDD-140** Credits: 3

### Behavior and Emotional Challenges

This three-credit course prepares the student to build rapport with children and their families, create supportive learning environments; demonstrate positive social-emotional teaching strategies; define specific discipline and guidance strategies; assess challenging behaviors; describe specific diagnoses typically related to challenging behaviors; develop individualized, positive guidance plans; and communicate the need for positive, consistent, team approaches to including children with challenging behaviors in typical community settings.

**CHILDD-141** Credits: 3

### Special Healthcare Needs

This course will have a medical focus and covers frequently encountered specialized healthcare needs of individuals with disabilities, preparing the student to examine altered body systems function, including sensory, gastrointestinal (tube feedings), bowel and bladder elimination, respiratory (allergies and asthma), cardiovascular/blood, musculoskeletal, neurological, skin/immune, and endocrine (diabetes) related issues. You will not be practicing medicine, but you will gain a better understanding of medical issues and professionals who can support you in establishing policies and procedures that assure safe, quality care for all.

**CHILDD-142** Credits: 3

### Inclusion Capstone Family and Team

During this course, you will be spending time with a child in the community settings that child experiences such as their home, school, child care, grocery store, medical settings,



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parks, libraries and more! As you do so, you are offered the opportunity to deeply explore the perspectives of the various people involved in this child's life as well as the service delivery systems available to the child and family. Prerequisite(s): Complete CHILDD-140, CHILDD-141 and CHILDD-187.

**CHILDD-148** Credits: 3

### **ECE: Foundations of ECE**

This three-credit course introduces the early childhood profession through a historical overview of the field. The course will explore program trends, quality indicators and developmentally appropriate practices for children birth to 8 years of age.

**CHILDD-151** Credits: 3

### **ECE: Infant and Toddler Development**

This three-credit course explores infant and toddler development as it applies to an early childhood education setting. This course focuses on children's development from conception through 36 months (3 years). This course includes training for Wisconsin Breastfeeding Friendly Child Care certification.

**CHILDD-160** Credits: 3

### **ECE: Field Experience 1**

This three-credit introductory field experience course introduces the foundations of early childhood education under guided supervision of a mentor teacher in an early childhood setting, working with children birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training.

**CHILDD-167** Credits: 3

### **ECE: Health, Safety and Nutrition**

This three-credit course examines the topics of health, safety and nutrition within the context of the early childhood educational setting for children from birth through 8 years of age. This course includes training for abusive head trauma, SIDS and mandated reporter certifications.

**CHILDD-170** Credits: 3

### **ECE: Field Experience 2**

This three-credit intermediate field experience course includes assisting the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play for children birth to age 8. Prerequisite(s): Must be admitted to the Early Childhood Education program (10-307-1). Complete CHILDD-160.

**CHILDD-179** Credits: 3

### **ECE: Child Development**

This three-credit course examines child development within the context of the early childhood education setting. This course focuses on children ages 3-8 years. Prerequisite(s): Complete CHILDD-151.

**CHILDD-181** Credits: 3

### **Child Care Operations Management**

This is the second of six courses designed to prepare participants to receive a credential

as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs.

**CHILDD-182** Credits: 3

### **Child Care Financial Management**

This is the third of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course represents an overview of the roles and responsibilities of administrators of various early care and education programs and the groups with whom they have role relationships, with an emphasis on quality.

**CHILDD-184** Credits: 3

### **The External Environment**

This is the fourth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers the external factors and relationships that provide constraints and opportunities that affect an organization's quality and ability to survive. It includes predicting supply and demand, marketing, licensing and other required regulation, funding, accreditation, external evaluation, collaboration with community organizations and agencies, public policy issues in early care and education, advocacy, and working for public policy changes.

**CHILDD-185** Credits: 3

### **Child Care Best Practices**

This is the fifth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers child care as a family friendly community, integration of child growth and development principles into all aspects of the program, establishing and maintaining quality in the program, developing partnerships with families, multicultural and anti-bias approaches in curriculum, materials, activities, relationships, and space design and equipment.

**CHILDD-186** Credits: 3

### **Child Care Administrative Capstone**

This is the last of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. Those first five courses are primarily about mastering the necessary skills to be successful at managing quality early childhood education programs. The strategies learned in this course build upon their management skills and take them beyond management to incorporate leadership in their programs, communities and profession. Through the development of a major project, students synthesize, integrate and apply the concepts and skills acquired in the full series of courses. Prerequisite(s): Complete CHILDD-204, CHILDD-181, CHILDD-182, CHILDD-184 and CHILDD-185.

**CHILDD-187** Credits: 3

### **ECE: Children With Differing Abilities**

This three-credit course focuses on the child with differing abilities in an inclusive early childhood education setting while examining strategies for cultivating partnerships with families and community supports for children from birth to 8 years of age.

**CHILDD-188** Credits: 3

### **ECE: Guiding Child Behavior**

This three-credit course examines positive strategies to guide children's behavior in the early childhood education setting for children from birth to 8 years of age. This course meets the requirements of the Wisconsin Pyramid Model training. Prerequisite(s): Complete CHILDD-151.

**CHILDD-190** Credits: 3

### **ECE: Field Experience 3**

This three-credit advanced field experience course focuses on supporting young children's development from birth to age 8 through observation, assessment and implementation of developmentally appropriate teaching strategies. Prerequisite(s): Must be admitted to Early Childhood Education program (10-307-1). Complete CHILDD-160 and CHILDD-170.

**CHILDD-195** Credits: 3

### **ECE: Family and Community Relations**

This three-credit course will examine the role of relationships with family and community in early childhood education for children from birth to 8 years of age. In this course, students will complete the Strengthening Families Training.



# CHILDD – CJS

**CHILDD-199** Credits: 3

## **ECE: Advanced Practicum**

In this final three-credit practicum course, you will demonstrate competence in supporting child development through observation, assessment and implementation of teaching strategies as you work in and learn about and apply the course competencies in an actual early childhood setting. You will demonstrate a high level of skill in fostering relationships with children, families and early childhood professionals, and use skills learned in a lead teacher role to develop a career plan to transition from student to early childhood education professional. Prerequisite(s): Must be admitted to the Early Childhood Education program (10-307-1). Complete CHILDD-175 and CHILDD-177.

**CHILDD-204** Credits: 3

## **Supervise/Administrate ECE Programs**

This is the first of six courses designed to prepare participants as child care administrators. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs.

**CHILDD-210** Credits: 3

## **ECE: Field Experience 4**

This final three-credit, pre-professional field experience course focuses on demonstrating a comprehensive understanding of children from birth to age 8 and families. An emphasis is on practicing the lead teacher role to design, implement and evaluate a connected unit of learning experiences. Prerequisite(s): Must be admitted to the Early Childhood Education program. Complete CHILDD-190.

## **CHNN – Community Health and Nutrition Navigator (Department 539)**

**CHNN-202** Credits: 3

### **Healthcare Delivery**

This course examines the different types of healthcare institutions and the various roles of healthcare providers. The course also addresses types of diseases, diagnoses and types of treatment, along with the use of the medical record and continuity of care.

**CHNN-203** Credits: 3

### **Prevention and Community Health**

This course will address levels of prevention (primary, secondary and tertiary), assess individual and community needs, and discuss use of evidence-based practices and community resources to engage individuals and families in ongoing prevention and health assessment efforts. Prerequisite(s): Completion of or currently enrolled in HEALTH-112.

**CHNN-206** Credits: 2

### **Experiential Practice 1**

This supervised practicum experience will focus on application of skills and knowledge in either the community health setting or the insurance setting.

**CHNN-207** Credits: 3

### **Experiential Practice 2**

This supervised practicum experience provides application of health navigator acquired skills and knowledge in an agency setting of student's choice (community health, insurance or healthcare agency as patient navigator).

## **CIVIL – Civil Engineering (Department 607)**

**CIVIL-101** Credits: 2

### **Civil Engineering Drawing**

The methods, techniques and equipment used in the civil engineering profession are studied. Drafting principles of geometric construction and orthographic projection are applied. Basic civil engineering drawings are reviewed, including subdivision mapping, plan and profiles, cross sections, and site and grading plans.

**CIVIL-102** Credits: 2

### **Introduction to AutoCAD**

This course introduces students to two-dimensional computer drafting. Course content includes how to draw orthographic views and section views; how to draw entities such as lines, circles and text; how to add dimensions; how to edit drawings; and how to create and use blocks. Both A- and B-size templates are used. The American National Standards are emphasized in line weights, dimensions and appearance.

**CIVIL-105** Credits: 2

### **Computer Applications**

Computer applications such as word processing and spreadsheet usage are covered. Calculator methods and programming with the TI-86 scientific programmable calculator are included.

**CIVIL-106** Credits: 2

### **Intermediate AutoCAD**

This course is designed to expand the use of 2D AutoCAD. The course will cover advanced editing techniques, the use of multiple scale factors for drawings, attributed blocks, dynamic blocks, the use of xrefs and advanced dimensioning. System variables and basic script files are also studied. Prerequisite(s): Complete CIVIL-102.

**CIVIL-108** Credits: 1

### **Construction Computer Applications**

This computer applications course is designed to provide students with word processing, spreadsheet and internet skills. Additionally, the course gives students an opportunity to utilize these skills in a project and presentation. Prerequisite(s): Completion of or currently enrolled in CABMIL-303.

**CIVIL-110** Credits: 2

### **Introduction to Civil 3D**

Civil 3D is an engineering software application used by civil engineers and other professionals to plan, design and manage civil engineering projects. Students will become familiar with the Civil 3D user interface and enhanced capabilities with respect to AutoCad. Field collected survey points, Point file formats and Point Groups are discussed and used. Surfaces are created utilizing breaklines, feature lines and point groups. Alignments, annotation methods and geo-referenced digital orthophotography are also covered. Prerequisite(s): Complete CIVIL-102.

**CIVIL-135** Credits: 3

### **Public Works Engineering and Estimating**

The basic principles of planning, design, construction and operation of public works facilities, such as water, wastewater, solid waste and transportation systems are discussed. Estimating techniques for civil engineering projects are covered.

**CIVIL-141** Credits: 4

### **Statics and Strength of Materials**

The principles of static equilibrium are applied to free bodies. Students study the behavior of simple structures under load. The properties of the cross section are determined and used in the analysis of stress, deflection and strain. Compression, tension, shear and bending stresses are analyzed. Prerequisite(s): Complete MATH-115 or MATH-202.

**CIVIL-142** Credits: 3

### **Structures**

General structural behavior with respect to live and dead loading, wind loading, earthquake loading, and transfer of loads throughout a structure by diaphragms and shear walls are studied. The principles of structural steel, reinforced concrete and timber structures are studied, including the codes of practice for each. Different types of foundations are presented and basic foundation design principles are studied. Prerequisite(s): Complete CIVIL-141 and MATH-115 or MATH-202.

**CIVIL-147** Credits: 3

### **Soils and Materials Testing**

The purpose of this course is to help students gain an understanding of the engineering properties of construction materials and soils. Lab tests are performed on soil, aggregates, concrete and steel. The results of these tests are then used to determine the strengths and weaknesses of each material related to their use in civil engineering. WisDOT Certification for PCCTec I/IA (Portland Cement Concrete Technician) is also available as part of this course. Prerequisite(s): Complete CIVIL-105. Completion of or currently enrolled in MATH-115.

**CIVIL-148** Credits: 3

### **Structural Detailing**

The students will learn how to draw detailing drawings using AutoCAD and Autodesk Revit Structure. Autodesk Revit Structure is

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a 3D civil engineering design software used for civil design, drafting and documentation, collaboration, and Building Information Modeling (BIM) workflows. The students will learn how to draw a structural project and framing system and add structural elements such as concrete foundation, walls, beams in addition to steel beams, columns and connections. Prerequisite(s): Complete CIVIL-106 and CIVIL-141.

### **CIVIL-155** Credits: 2 **Surveying 1**

The principles of surveying are presented and the use of surveying tools and instruments in the application of these principles is covered. Taping, leveling and basic total station operation are included. The methods of measurement and the processing of measurement and data are studied.

### **CIVIL-156** Credits: 2 **Surveying 2**

The principles of surveying are continued, with emphasis on traverse procedures and calculations. The theodolite, EDM, total station GPS and data collector are used for topographic and construction surveys. The uses of COGO are also covered. Prerequisite(s): Complete CIVIL-155. Completion of or currently enrolled in CIVIL-102 and MATH-115.

### **CIVIL-157** Credits: 3 **Route and Highway Surveying**

Horizontal and vertical alignment field problems and theory are covered. Geometric design, including circular horizontal curves, vertical curves, sight distance, super elevation, cross sections and earthwork is studied. Also, a roadway plan and profile are prepared. Prerequisite(s): Complete CIVIL-156 and CIVIL-102.

### **CIVIL-158** Credits: 2 **Land Surveying**

The U.S. Public Land Survey is reviewed. Minimum standards for property surveys are covered. Subdivision regulations and mapping requirements for CSM and subdivision plats are also studied. Also, the principles of control surveys, state plane coordinates and GPS are reviewed. Prerequisite(s): Complete CIVIL-157.

### **CIVIL-160** Credits: 3 **Legal Elements of Land Surveying**

This course covers the techniques of boundary location from the interpretation of written deeds. Principles are drawn from precedents established by the courts. Wisconsin Administrative Code A-E7 and Wisconsin Statutes Chapter 236 are reviewed. Prerequisite(s): Complete CIVIL-156.

### **CIVIL-161** Credits: 3 **Boundary Location**

The principles and practice of boundary locations are presented. The public land system is covered in detail. Principles for performing surveys will be discussed. Prerequisite(s): Complete CIVIL-156.

### **CIVIL-170** Credits: 3

#### **Sewer and Water Systems**

The principles of design and construction of water distribution, sanitary sewer and storm sewer systems are studied including the related principles of hydraulics, hydrology and local standards. Engineering drawings of these facilities are also prepared. Prerequisite(s): Complete CIVIL-102 and CIVIL-135.

### **CIVIL-308** Credits: 1 **Computer Applications for the Trades**

This computer applications course is designed to provide students with word processing, spreadsheet, PowerPoint, email and internet skills. Additionally, the course gives students an opportunity to utilize these skills in a project and presentation.

## **CJS – Criminal Justice Studies (Department 504)**

### **CJS-160** Credits: 3 **Contemporary Legal Issues**

Student will learn about past and present domestic and foreign terrorist organizations and the structure of organizations in America that must deal with the actions of these groups. Student will identify constitutional, judicial and statutory concepts relevant to investigating and prosecuting criminal actions of these groups. This includes investigative techniques currently in place.

### **CJS-161** Credits: 3 **Ethics in Law Enforcement**

Course provides a basic understanding of the theoretical foundations of ethical thoughts. Diverse ethical perspectives will be used to analyze and compare relevant issues in law enforcement. Student will critically evaluate individual, social and/or professional standards of behavior within society and law enforcement, and also apply a systematic decision-making process to these situations.

### **CJS-162** Credits: 3 **Sensitive Crimes**

Student will identify what a sensitive crime is and responsibilities of law enforcement in dealing with victims of these crimes. Student will learn of resources and remedies available to these vulnerable victims. Student will also learn about crimes related to violence against women and exploitation of children for a local and global perspective. Prerequisite(s): Complete CJS-902.

### **CJS-164** Credits: 3 **Law Enforcement Employability**

Course will prepare students to engage in the law enforcement application process including various exams and interviews. Course also addresses mental and physical fitness related to careers in law enforcement.

### **CJS-900** Credits: 3 **Intro to Criminal Justice**

Course is an examination of the American criminal justice system, including the historical

and modern role/functions of federal, state, local law enforcement, courts and corrections. Introduction to critical thinking and problem-solving in the context of law enforcement.

### **CJS-901** Credits: 3 **Constitutional Law**

Course studies the theory of laws and the practices of arrests, searches and seizures as individual concepts and their interrelationships within the criminal justice system. Course also studies constitutional and statutory limitations on the proper authority of law enforcement to perform these tasks. Will contain discussions on contemporary issues of use of force and the exclusionary rules.

### **CJS-902** Credits: 3 **Criminal Law**

This course defines and describes theories concerning the nature of crime and the purpose and source of criminal law in American society. Identifies principles of constitutional, federal, state and local laws that are applicable to criminal law with emphasis on the Wisconsin Criminal Code. Prerequisite(s): Complete CJS 901.

### **CJS-903** Credits: 3 **Professional Communications**

Students will develop and apply specific communication skills and strategies in a variety of simulated situations that are commonly used in law enforcement. Interview and interrogation skills are also addressed in this context. Prerequisite(s): Complete CJS-900, CJS-901, CJS-902, CJS-906, CJS-907 and CJS-908. Can take CJS-905 concurrently.

### **CJS-904** Credits: 3 **Juvenile Law**

Student will learn the components of the juvenile justice system, including identifying children in need of protection or services and adjudication of delinquency. Student will identify legal issues and laws relevant to juveniles and the roles of law enforcement in investigational techniques employed in child maltreatment cases as well as issues involving missing children. Prerequisite(s): Complete CJS-900.

### **CJS-905** Credits: 3 **Report Writing**

Student will learn to produce reports necessary for operations in law enforcement and the judicial system. Students will also learn the art of creating reports from various sources and the significance of these reports in legal proceedings. Prerequisite(s): Complete CJS-900, CJS-901 and CJS-902.

### **CJS-906** Credits: 3 **Criminal Investigation Theory**

Student will learn the role of evidence in criminal investigation and prosecution and the proper methods of identifying, documenting and recovering evidence. Student will learn methods and strategies related to interviews of witnesses and specific serious criminal offenses. Prerequisite(s): Complete CJS-901.

# CJS – COSMET

**CJS-907** Credits: 3

## Community Policing Strategies

Student will be introduced to strategies employed to implement the community policing model of law enforcement in use today. Student will learn how law enforcement can work with the community as partners to the benefit of each entity through proactive approaches that lead to reduction of criminal activities.

**CJS-908** Credits: 3

## Traffic Theory

Student will learn Wisconsin traffic laws and will investigate and document traffic crashes using current citation and forms. Student will also learn to recognize and interpret indicators of impaired driving and what actions are to be taken.

**CJS-909** Credits: 3

## Introduction to Corrections

This corrections course is designed to provide students with a comprehensive understanding of correctional systems, institutions and practices. Participants will explore the historical development, contemporary issues and various components of correctional systems. The course aims to equip students with the knowledge and skills necessary for understanding the correctional field(s) and related careers.

## CLABT – Clinical Laboratory Technology (Department 513)

**CLABT-109** Credits: 4

### Blood Bank

This course focuses on blood banking concepts and procedures, including blood typing, compatibility testing, workups for adverse reaction to transfusions, disease states and donor activities. Prerequisite(s): Complete CLABT-110, CLABT-113 and CLABT-115.

**CLABT-110** Credits: 1

### Basic Lab Skills

This course explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests. Prerequisite(s): Must be admitted to Clinical Laboratory Technician (10-513-1) or Phlebotomy (30-513-1) programs.

**CLABT-111** Credits: 2

### Phlebotomy

This course provides opportunities for students to perform routine venipuncture, routine capillary puncture and special collection procedures. Prerequisite(s): Must be admitted to Clinical Laboratory Technician (10-513-1) or Phlebotomy (30-513-1) programs. Completion of or currently enrolled in CLABT-110.

**CLABT-113** Credits: 1

### QA Lab Math

Focuses on performing the mathematical calculations routinely used in laboratory settings. You will explore the concepts of quality control and quality assurance in the laboratory. You will review regulatory compliance requirements and certification and continuing education programs. Prerequisite(s): Must be admitted to Clinical Laboratory Technician program (10-513-1).

**CLABT-114** Credits: 2

### Urinalysis

Prepares you to perform a complete urinalysis, which includes physical, chemical and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions. Prerequisite(s): Completion of or currently enrolled in CLABT-110 and CLABT-113.

**CLABT-115** Credits: 2

### Basic Immunology Concepts

Provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections. Prerequisite(s): Must be admitted to Clinical Laboratory Technician program (10-513-1).

**CLABT-116** Credits: 4

### Clinical Chemistry

Introduces clinical chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis. Prerequisite(s): Complete CLABT-113.

**CLABT-120** Credits: 3

### Basic Hematology

Covers the theory and principles of blood cell production and function, and introduces you to basic practices and procedures in the hematology laboratory. Prerequisite(s): Completion of or currently enrolled in CLABT-110, CLABT-111, CLABT-113 and CLABT-115.

**CLABT-121** Credits: 1

### Coagulation

This course introduces the theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed upon laboratory techniques used to diagnose disease and minor treatment. Prerequisite(s): Completion of or currently enrolled in CLABT-113.

**CLABT-130** Credits: 2

### Advanced Hematology

Explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment. Prerequisite(s): Complete CLABT-120.

**CLABT-133** Credits: 4

### Clinical Microbiology

Presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission, and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed. Prerequisite(s): Complete CLABT-170.

**CLABT-140** Credits: 2

### Advanced Microbiology

Provides an overview of acid-fast organisms, fungi, parasites and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, and laboratory methods of handling, culturing and identification will be discussed. Prerequisite(s): Completion of or currently enrolled in CLABT-133.

**CLABT-143** Credits: 1

### Seminar

This course provides a review from previous courses that helps the student prepare for national certification examinations for the clinical laboratory technician level. It also assists students with resume development, job interview practice and job searches. Prerequisite(s): Complete CLABT-170.

**CLABT-151** Credits: 3

### Clinical Experience 1

In this clinical, you will practice the principles and procedures of laboratory medicine as an entry-level medical/ clinical laboratory technician in a clinical laboratory setting. You will learn to operate state-of-the-art instruments and report results on laboratory information systems. Prerequisite(s): Completion of or currently enrolled in CLABT-130, CLABT-133 and CLABT-140.

**CLABT-152** Credits: 4

### Clinical Experience 2

Provides continuing practice for the principles and procedures of laboratory medicine as an entry-level clinical laboratory technician in a clinical laboratory setting. You will learn to operate state-of-the-art instruments and report results on laboratory information systems. Prerequisite(s): Complete CLABT-151.

**CLABT-170** Credits: 2

### Introduction to Molecular Diagnostics

Introduces the principles and application of molecular diagnostics in the clinical laboratory. Prerequisite(s): Complete CLABT-113.

## CNC – Computer Numerical Control (Department 444)

**CNC-302** Credits: 1

### Computer Applications/CNC

An introduction to Windows is given, beginning with an overview of a personal computer system's components. Students utilize Word and CNC editors to create and edit text files, explore



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the directory structure in the context of CNC programs and software, and control fixed and floppy disk drives. An introduction to Mastercam software will be covered.

### **CNC-320 Credits: 1** **Tooling and Fixturing**

An overview of the basic types and functions of jigs and fixtures and the way these work holders are designed and built. Basic elements of supporting, locating and clamping the parts are included, as well as modular component work holders and principles of power clamping.

### **CNC-321 Credits: 1** **CNC Machine Technology**

Instruction is given in state-of-the-art CNC machining technologies. This course is upgraded as these technologies change.

### **CNC-324 Credits: 3** **CNC Machine Programming/Prove Out 1**

This course is for those who already understand the basic concept of CNC machining center operations. Students will be taught to operate tech-specific CNC machines. Basic concepts of manual CNC programming, including linear and circular interpolation, Z-axis canned cycles, and cutter diameter compensation, are covered. All CNC programs that the student writes will then be proved out on a full-sized industrial CNC machine center. Prerequisite(s): Complete either MACHTL-320 and MACHTL-322 or MACHTL-373.

### **CNC-325 Credits: 3** **CNC Machine Programming/Prove Out 2**

This course is for those who already understand the basic concepts of CNC machining center operations and CNC programming. The course will cover additional CNC programming techniques such as polar coordinates, metric programming, subroutine programming, zero shift and multiple work zero programs. Also covered are advanced CNC machining center operational procedures. Prerequisite(s): Complete CNC-324.

### **CNC-326 Credits: 3** **Machining Center CAD/CAM Programming 1**

This course is for those who already understand the basic concepts of CNC machining center operations and CNC programming. The course will cover additional CNC programming techniques including an introduction to CAD/CAM. Also covered are advanced CNC machine center operational procedures. All of the jobs that the student programs will be run on a CNC machining center. Prerequisite(s): Complete CNC-325.

### **CNC-327 Credits: 3** **Machining Center CAD/CAM Programming 2**

This course is for those who already understand the basic concepts of CNC machining center operations and CNC programming. The course will cover additional CNC programming techniques including CAD/CAM, which was introduced in the previous course. This course will start with a review of the basic process of

creating a CNC program using a CAD/CAM system. Students will then advance through all of the different features of today's CAD/CAM systems as they relate to CNC programming for machining centers. Prerequisite(s): Complete CNC-326.

### **CNC-332 Credits: 3** **CNC Turning Programming/Prove Out 1**

This course is for those who already understand the basic operations of a CNC turning center. Students will be taught how to safely prove out a CNC program on the machines in the lab. Then students will be taught the basics of manual CNC programming for a turning center. All programs the student writes will be proved out on the machine with emphasis on tooling, speeds and feeds for metal cutting. Prerequisite(s): Complete either MACHTL-320 and MACHTL-322 or MACHTL-373.

### **CNC-333 Credits: 3** **CNC Turning Programming/Prove Out 2**

This course will build on the concepts learned in Programming/Prove Out 1. Additional operational procedures for CNC turning centers will be covered. Also, additional programming techniques such as threading, TNR compensation and metric programming will be covered. All programs the student writes will be proved out on the machine with emphasis on tooling, speeds and feeds for metal cutting. Prerequisite(s): Complete CNC-332.

### **CNC-334 Credits: 3** **Turning Center CAD/CAM Programming 1**

This course will build on the concepts learned in Programming/Prove Out 2. Additional procedures for CNC turning centers will be covered. Also, additional programming techniques such as internal boring, internal threading and canned cycles will be covered. All programs the student writes will be proved out on the machines with emphasis on tooling, speeds and feeds for metal cutting. Also, an introduction to CAD/CAM programming will be covered. Prerequisite(s): Complete CNC-333.

### **CNC-335 Credits: 3** **Turning Center CAD/CAM Programming 2**

This course covers CAD/CAM programming for CNC turning centers using PC-based master CAM software. All programs the student writes will be proved out on the machine with emphasis on tooling speeds and feeds for metal cutting. Prerequisite(s): Complete CNC-334.

## **COMPSW – Computer Software (Department 103)**

### **COMPSW-137 Credits: 1** **MS Excel – Part 1**

Students will cover the basics in creating and managing Excel worksheets and workbooks. This course includes creating cells, ranges, tables, charts and objects; formatting and printing reports; and applying formulas and functions. Excel Part 1 is designed for students at a beginner level in spreadsheet applications

and provides good background material to help the student prepare for the beginning Microsoft Office Specialist (MOS) certification in Excel.

## **CONSTR – Construction Trade General (Department 476)**

### **CONSTR-302 Credits: 1** **OSHA Safety/CPR for the Trades**

First aid according to the Red Cross and the U.S. Occupational Safety and Health Administration guidelines will be covered in the construction trade courses in carpentry, masonry and cabinetmaking. Prerequisite(s): Admission into the construction trades.

### **CONSTR-380 Credits: 1** **Mathematics for Construction Trades**

Through practical problems of the carpentry, masonry and cabinetmaking trades, students review addition; subtraction; fundamentals of fractions and decimals; percentages, weights and measures; and the application of formulas. Along with linear and board, square root is used in practical math in the construction trades for estimating and recording materials and supplies.

## **COSMET – Cosmetology (Department 502)**

### **COSMET-301 Credits: 2** **Intermediate Haircutting**

Introduces the basic fundamental skills and related theory of men's haircutting techniques including use of haircutting razor, shears and clippers. Students practice cutting combination haircuts using 0-, 45- and 90-degree angles to include tapers, fades, natural afros and other haircuts on mannequins and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

### **COSMET-302 Credits: 2** **Intro to Haircutting**

Introduces the theory of and related practical skills for cutting hair using shears and razor. Thinning techniques are presented. Students practice haircutting and thinning techniques on mannequins, available models and hair goods. Prerequisite(s): Must be admitted to Cosmetology program (31-502-1).

### **COSMET-303 Credits: 2** **Master Haircutting**

This course offers advanced haircutting techniques and methods using shear-over-comb and clipper techniques. Students practice haircutting skills on available models and classmates. Prerequisite(s): Complete BARCOS-300, COSMET-301, COSMET-302, COSMET-305, COSMET-310, COSMET-314 and COSMET-306.



# COSMET – CSG

## **COSMET-304 Credits: 2**

### **Permanent Wave**

Introduces the theory of and practical skills for permanently curling/waving naturally straight or wavy hair. Students practice winding permanent wave rods in sectioning patterns with chemical application on a mannequin and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-305 Credits: 2**

### **Advanced Haircutting**

Offers advanced haircutting techniques and methods to create haircuts with varying types of guidelines, weight lines, bangs and fringes. Speed and efficiency are encouraged. Students practice haircutting skills on available models and classmates. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-301, COSMET-314, COSMET-310 and COSMET-306.

## **COSMET-306 Credits: 2**

### **Intro to Esthetics**

This course introduces the theory and practical skill of facials. Students study skin histology, disorders and diseases; skin analysis, including the use of facial machine; facial massage manipulations; application of skin care products; removal of superfluous hair; and an introduction to makeup application. Students practice skills on classmates. Prerequisite(s): Must be admitted to the Cosmetology program (31-502-1).

## **COSMET-307 Credits: 1**

### **Advanced Esthetics**

Students continue to build upon skills taught in Esthetics 1. Students practice advanced skills in facial treatments including facials for specific conditions (oily, mature or dehydrated), techniques and benefits of high frequency and galvanic current, corrective makeup, and facial hair removal. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-308 Credits: 2**

### **Nail Services**

The course introduces the theoretical and practical skills of manicuring, pedicuring, including nail art, and massage of the hand/arm, foot/leg in addition to the preparation for the Wisconsin State Board manicuring state board exam. Students practice giving and receiving manicures and pedicures on classmates while demonstrating safety and sanitation procedures. This course includes some online assignments and tests in preparation for the online state board exam. Purchase BARCOS-308 kit from bookstore at the start of the semester. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-309 Credits: 2**

### **Chemical Relaxing**

Introduces the theory and practical skills for chemically relaxing naturally curly hair for first-time and retouch applications. Students

practice application techniques on mannequins and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-310 Credits: 2**

### **Hair Tinting**

Introduces the theory of and basic application procedures of adding artificial hair color to natural hair using temporary, semi-permanent, demi-permanent and permanent products. Students practice applying professional hair coloring products on mannequins, available models and hair goods. Prerequisite(s): Must be admitted to the Cosmetology program (31-502-1).

## **COSMET-312 Credits: 1**

### **Advanced Color**

This course presents the advanced practical skills for removing natural hair color using hair lightening services. Students practice lightening techniques with cap and weaving lightening and freehand techniques on mannequins, available models and hair goods. MATC strongly recommends that students complete COSMET-310, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete COSMET-310.

## **COSMET-313 Credits: 1**

### **Hair Color Correction**

This course provides for the expansion of practical skills required for lightening hair by retouch and first-time processes; successful hair color correction is addressed. Students observe real-life hair lightening and color corrections and practice on models and mannequins. MATC strongly recommends that students complete COSMET-312, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete COSMET-310 and COSMET-312.

## **COSMET-314 Credits: 2**

### **Intro to Hairstyling**

Introduces the artistic foundations in theory and practical wet hair styling in roller placement, hair wrapping, blow drying, thermal pressing and thermal iron curling. Students practice developing skills on mannequins, hair goods and classmates. Prerequisite(s): Must be admitted to the Cosmetology program (31-502-1).

## **COSMET-315 Credits: 2**

### **Intermediate Hairstyling**

Presents wet hair styling theory and practical skills for fingerwaving, pin curling and blow dry styling. Students practice various pin curling, finger waving patterns and blow-drying techniques on mannequins and available models. Speed and accuracy are developed in thermal curling. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-316 Credits: 1**

### **Advanced Style**

Offers advanced techniques in long hair design, such as updos and braids, including French twist, Gibson, French braids and inverted French braids. Students practice on mannequins,

available long-hair models and hair goods. Prerequisite(s): Complete BARCOS-300, COSMET-301, COSMET-310, COSMET-314, COSMET-315 and BARCOS-319.

## **COSMET-317 Credits: 1**

### **Barber/Cosmetology Theory**

Presents foundational theoretical concepts in microbiology and decontamination, general chemistry, micro-hair structure, and anatomy as related to the profession. Students participate in large and small group activities, individual work in class activities, and/or online. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-320 Credits: 1**

### **Intro to Guest Services**

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

## **COSMET-321 Credits: 1**

### **Hair Extensions**

Students learn how to add hair extension to hair and to braided styles and apply skills learned on mannequins and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306 and BARCOS-319.

## **COSMET-323 Credits: 1**

### **Intermediate Guest Services**

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, BARCOS-319 and COSMET-320.

## **COSMET-326 Credits: 1**

### **Advanced Guest Services**

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, BARCOS-319 and COSMET-320.

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**COSMET-327** Credits: 1

### Master Guest Services

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed.

Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, BARCOS-319 and COSMET-320.

**COSMET-328** Credits: 1

### Externship

This course offers opportunities for professional practice of developing skills in a salon-like environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor or salon manager. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, COSMET-320, COSMET-305, COSMET-312, COSMET-308, COSMET-307, COSMET-315, COSMET-323, COSMET-303, COSMET-313, BARCOS-324 and COSMET-326.

**COSMET-329** Credits: 1

### Basic Artificial Nail Concepts

This course provides the theoretical component of nail enhancements and practical skill development of artificial nail applications. Students observe and practice artificial nail applications, including nail tips, nail wraps, acrylics, UV gel and UV gel polish, on artificial nails. This course includes some online assignments and tests in preparation for the online state board exam. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306 and COSMET-308.

**COSMET-335** Credits: 3

### State Board Review

Presents a review of the theory and practical skills acquired throughout the program. Prepares students for successful completion of the barbering and cosmetology Wisconsin professional licensing exam. Students pack an exam kit, work through a mock examination and complete a school final theory exam. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, COSMET-320, COSMET-305, COSMET-312, COSMET-308, COSMET-307, COSMET-315, COSMET-323, COSMET-303, COSMET-313, COSMET-326 and BARCOS-324.

## CSG – Computer Simulation and Gaming (Department 153)

**CSG-110** Credits: 3

### Introduction to Computer Simulation and Gaming

This course provides students with an overview of the computer simulation and gaming industry. Students will be introduced to the genres, gaming development process, ethics, copyright issues, and planning, marketing and management concepts. Emphasis will be placed on game objectives, keeping the player perspective and educational applications.

**CSG-114** Credits: 3

### Intro to Game Development/Programming

This course focuses on object-oriented logic and programming skills as it applies to simulation and game development. Students will learn the fundamentals of applying sequences, decisions, loops, variables and basic data structures in a game engine. They will also learn the importance of optimization and how to debug simulation and game software. Proper program design, documentation and testing will also be emphasized.

**CSG-115** Credits: 3

### CSG Production

This course provides students with a hands-on team approach to creating games and simulation from the very beginning. Animation-focused students work side by side with programming-focused students to create simple introductory games and simulations on a game engine. Exposure to content requirements, engine limitations, scheduling, deliverables and communications will be emphasized. Teams will be selected and compete against each other for bragging rights and notoriety. The focus of this class is to perform rapid prototyping of ideas in a challenging environment while developing collaboration skills.

**CSG-117** Credits: 3

### Game Logic and Problem-Solving

This course presents a formal approach to logical thinking and problem-solving using game logic concepts. For students to think logically and solve game play problems, they need to understand game mechanics and game play choices. This means to use logically valid forms of analysis, critical thinking and application concepts to derive new results from those already known to be implemented in the gaming industry. This course will teach these game problem-solving structures in context with fundamental programming structure application.

**CSG-118** Credits: 3

### Game Engine Scripting

This course expands on the fundamental concepts introduced in Introduction to Object-Oriented programming in a gaming environment. Game scripting languages in a game engine environment will be used to create

games and simulations. The course emphasizes good software engineering principles and developing fundamental programming skills in the context of a language that supports the object-oriented paradigm. In this course, the student applies lessons learned in introductory course to a pre-existing game class within the game engine. Topics include classic techniques for algorithm design, game mechanics problem-solving in the object-oriented paradigm and application of algorithm design techniques to a game mod project. Prerequisite(s): Complete CSG-117.

**CSG-119** Credits: 3

### Designing Interactive Displays

This course introduces students to interactive display systems using a game engine. Focus will be on designing, producing and testing museum-quality programs and simulations for edutainment purposes. We will also emphasize display design concepts such as lighting, sound, projection, audience interaction, docent design and user interface technology. Students will be immersed in a team and production environment on a real project for a real client. Prerequisite(s): Complete CSG-118 or ANIM-106.

**CSG-120** Credits: 1

### Interactive Display Production 1

This course provides students opportunities to get practical production experience on the specific display platform prototype used at MATC. The student, working as part of a team, will be responsible for following production processes to evaluate current interactive displays and enhancing them. Focus will be placed on responding to client requests, developing practical design solutions and implementing those solutions. Prerequisite(s): Complete CSG-118.

**CSG-127** Credits: 3

### Agile Project Management

This course offers training in a wide variety of Agile Project Management techniques. Topics covered are Scrum, XP-Pair, Lean, Kanban and feature-driven development methods just to name a few. Agile provides the framework in which to apply these other methodologies for product development. Students taking this course will obtain the working knowledge required to pass industry-standard certifications through the Scrum Alliance. Some of the certifications covered are Scrum Master, Product Owner, Scrum Trainer, Scrum Professional and Scrum Coach. This is done through project-based learning methods where teams will form and plan out several new product paper prototypes. Agile is quickly becoming the industry standard for self-managing teams to come together and successfully release new products and redirect old ones.

# CSG – CULART

## **CSG-128** **Credits: 3**

### **Intermediate Game Development Programmer**

This course expands upon object-oriented logic and programming skills as it applies to simulation and game development. Concepts such as formulas, algorithms, inheritance, polymorphism and data hiding as they relate to simulation and game development programming will be the main focus. Students will also learn the principles of proper version control in a team-based setting. Pair programming, understanding and implementing features and tasks, and collaborative development will also be emphasized. Prerequisite(s): Complete CSG-114.

## **CSG-129** **Credits: 2**

### **CSG Architecture**

This course provides students with an overall architectural planning concept of a simulation or game. Students will be introduced to level diagrams, flow control, structure and progression diagrams, assessment tools in educational applications, and decision-making mapping. Emphasis will be placed on planning, documentation tracking and process monitoring. Prerequisite(s): Complete CSG-110 and either CSG-114 or CSG-131.

## **CSG-130** **Credits: 3**

### **CSG Design**

This course offers students an exploration of the fundamentals of simulation and game design. Students will construct a simple game or simulation using industry standards and test-driven design elements. Emphasis will be placed on the planning, development control and testing process of the simulation or game. Educational applications will also be discussed. Prerequisite(s): Complete CSG-110, CSG-115 and CSG-117.

## **CSG-131** **Credits: 3**

### **Introduction to Game Design**

This course provides students with a hands-on team approach to designing games and simulation from the very beginning. Design members will learn theories and applications of game design as well as the process of design documentation within the game development environment. Exposure to content requirements, scheduling, deliverables and communications will be emphasized.

## **CSG-132** **Credits: 3**

### **Artificial Intelligence**

This course provides students with an introduction to artificial intelligence concepts related to the simulation and game industry. Students will be introduced to basic planning, decision-making and testing concepts of AI that add value to simulations and games. Emphasis will be placed on developing an AI system for simple games to keep the user engaged. Prerequisite(s): Complete CSG-179.

## **CSG-133** **Credits: 3**

### **Intermediate Game Design**

This course is designed to teach students how to create lore for characters and environments as well as advanced combat and economy systems. This is intended to prepare game designers for

creating unique worlds and mechanics for all types of games. Focuses will be writing lore, level design, character design, enemy AI, combat design, puzzle design and game economies. These courses are intended for game designer-focused students. Prerequisite(s): Complete CSG-115 and CSG-117.

## **CSG-138** **Credits: 3**

### **Advanced Games Design**

This course is designed to teach students how to create a unique game world with characters, environments, advanced combat systems and economy systems. This is intended to prepare game designers for creating unique game mechanics for all types of games. Focuses will be world design, level design, character design, enemy AI, combat design, puzzle design and game economies. This course is intended for game designer-focused students or students who want to broaden their creative design skills to support another focus. Prerequisite(s): Complete CSG-133.

## **CSG-147** **Credits: 3**

### **Creative Studio Management**

This course provides students the opportunity to learn about how to effectively build and manage a technical games software development studio. Curriculum will revolve around building an employee handbook that reinforces a strong culture required to run a diverse Agile and Lean business successfully. Students will also build a three-year strategic business plan that focuses on researching and building products within emerging markets. This course will also help students to design, build and manage information systems, as well as identify Dev Ops opportunities that will effectively help them to successfully deliver winning software. This course builds on learning gained from the Agile Project Management and Innovation Lifecycle.

## **CSG-179** **Credits: 4**

### **CSG API Programming**

This course focuses on OO programming languages and tools used in computer simulations and games. Emphasis is placed on programming concepts used in an existing game engine at the root level of coding. Students will modify existing game code as they develop individual and group mods. The students will also be creating their own object classes to put into the game mechanics. The final project focuses on team programming and testing. Prerequisite(s): Complete CSG-118.

## **CSG-180** **Credits: 3**

### **Multimedia Collaborative Lab**

This course allows students to work on collaborative projects with industry, Discovery World or internal MATC departments. Students apply project management skills and their creative skills to create interactive multimedia applications in learning, training or marketing environments. Students can work in teams or independently while guided by faculty. This process simulates an industry team-oriented work environment where faculty, industry and the students are all part of the project planning, monitoring and evaluation. Prerequisite(s): Complete CSG-181 and either CSG-185 or CSG-138.

## **CSG-181** **Credits: 4**

### **CSG Collaborative Lab**

This course offers students in the CSG program the opportunity to focus on their CSG project in an effort to produce a game module by the end of fourth semester. It allows time just to focus on production and testing of the integrated pieces of animation and programming. Prerequisite(s): Complete CSG-129 and CSG-130 and then choose either CSG-128 or CSG-133.

## **CSG-185** **Credits: 3**

### **Data Structures for Game Developers**

This course focuses on advanced data structures used in programming simulations and games. Students will solve problems by using advanced data structures such as trees, queues, stacks and linked lists. The integration of these data structures into game engines as well as the fundamental concepts on their efficient use will be the main focuses of the course. Prerequisite(s): Complete CSG-128.

## **CULART – Culinary Arts** **(Department 316)**

## **CULART-100** **Credits: 1**

### **Introduction to Food Service/Hospitality**

This introductory course details the worldwide and domestic history of culinary arts and the food service industry. Emphasis is placed upon various types of food service operations, organizational systems, historical and contemporary figures, career opportunities, food trends, and the future of the food service industry.

## **CULART-103** **Credits: 2**

### **Culinary Arts Practicum**

At the completion of the first year of study, students will be assessed on the application and demonstration of the program competencies required. Competencies include: knife skills; basic cooking procedures, including stocks, soups, sauces, dry heat and moist heat applications; vegetable applications; grains, pasta and potato applications; and the fabrication and preparation of meats, poultry and fish. These will be assessed through a practical exam.

## **CULART-105** **Credits: 2**

### **Dining Room Service**

An orientation to acceptable hospitality standards essential to professional dining room service. Types of service, dining room functions, staff training, using current technology, guest service/ customer relations, workflow and sales techniques are covered. Prerequisite(s): Complete CULART-103 and CULMGT-112. Completion of or currently enrolled in CULART-138.

## **CULART-106** **Credits: 4**

### **Contemporary Restaurant Cooking**

In a practical restaurant kitchen, students plan, organize and prepare contemporary cuisines. To train students for this environment, this course emphasizes universal culinary techniques, intuitive cooking and cross-cultural



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flavor profiles. Students will learn about locally sourced ingredients and sustainable kitchen practices. Prerequisite(s): Complete CULART-103 and CULMGT-112.

### **CULART-107** Credits: 1 **Field Experience in Food Service/Hospitality**

Students work 216 hours as regular employees in a food service facility. The goal of Field Experience is to give students the opportunity to apply, on the job, the skills learned in the classroom and lab and obtain a broad overview of an entire facility. Prerequisite(s): Complete INTRN-796 with minimum grade of C or higher.

### **CULART-109** Credits: 1 **Garde Manger 1**

This course is designed to cover specialty techniques in the preparation of various charcuterie, preserved foods, cold food, hors d'oeuvres and decorative food applications. Forcemeats such as pates, terrines, galantines and sausage are prepared and presented. Brines, cures, marinades, dry rubs and barbecue for various meats and fish are produced. Salad and appetizer production and presentation are covered as well. Prerequisite(s): Complete CULMGT-112 and CULART-116.

### **CULART-111** Credits: 1 **Garde Manger 2**

This course is designed to cover specialty techniques in the preparation of various charcuterie, preserved foods, cold food, hors d'oeuvres and decorative food applications. Forcemeats such as pates, terrines, galantines and sausage are prepared and presented. Brines, cures, marinades, dry rubs and barbecue for various meats and fish are produced. Prerequisite(s): Complete CULMGT-112, CULART-103 and CULART-116. Completion of or currently enrolled in CULART-109.

### **CULART-114** Credits: 4 **Food Advocacy**

This course explores barriers and opportunities to the current food system and how we can support industrywide and local change for food advocacy. Students problem-solve to create efficiencies within MATC culinary food outlets. Production is focused on food recovery, utilization and quantity cooking to benefit student and community populations.

### **CULART-116** Credits: 2 **Mise en place/Culinary Fundamentals**

Students learn basic kitchen principles of food safety, kitchen organization, knife skills, egg cookery, recipe proficiency, equipment, and smallwares identification and usage.

### **CULART-117** Credits: 1 **Nutrition for Culinary Arts**

The course introduces the basic principles of scientific nutrition. Students will be introduced to nutritional guidelines, basic nutrients, and promotion of healthy cooking and eating. The course will show how the foods we eat contribute to our health and to the enjoyment of our lives.

### **CULART-118** Credits: 1 **Sustainable Food Communities**

A study of the food service industry's environmental impact on natural resources and issues related to sustainable practices such as renewable energy, waste reduction, local food sourcing and food production methods. Prerequisite(s): Must be admitted to the Culinary Arts (10-316-1), Culinary Assistant (31-316-1), Baking and Pastry Arts (10-314-1) or Baking Production (31-314-2) programs.

### **CULART-122** Credits: 1 **Stock, Soups and Sauces**

This course will have students discuss and prepare consommé, cream, clear, puree and bisque soups. Students will prepare a variety of stocks, including white, vegetable, beef, brown and chicken. Students will make a variety of sauces, including the mother sauces and several small sauces.

### **CULART-124** Credits: 1 **Meat Identification/Fabrications**

This course introduces the student to the subject of meats and their application in food service operations, building a strong foundation that supports the principles to be learned in the cooking courses that follow. Through lectures, demonstrations, hands-on activities and reviews, students learn about the muscle and bone structure of beef, veal, pork, lamb and poultry; fabrication methods for sub-primal and food service cuts; inspection and proper tying and trussing methods. Lectures introduce meat inspection, quality and yield grading, costing and yield testing, purchasing specifications, and basic information concerning the farm-to-table trail. Discussions include proper knife selection and butchery equipment with sanitation and safety standards stressed throughout. Current HACCP procedures and methods are used.

### **CULART-126** Credits: 1 **Seafood/Shellfish Cookery**

This course is designed to focus on the various types of cooking methods of fish and seafood found in the restaurant industry. Students learn about the history of commercial fishing in the U.S. and other regions of the world. The emphasis of study will include: fabrication of fish and seafood, various cooking methods, aquaculture, sustainability in the seafood industry, and applying various cooking techniques for all of the major seafoods to be studied. Students learn the difference between fresh water fish, farm-raised fish and seafood from the oceans around the world.

### **CULART-128** Credits: 1 **Vegetables, Starches and Grains**

Basic principles of vegetable, starches and grains preparation and presentation are taught. Study is made of various cooking methods/styles/trends and procedures applied to these categories. Scientific principles relating to the physical composition of different foods and the chemical changes involved in the cooking process are analyzed. Principles include heat transfer, food composition, sanitation

practice, personal hygiene, foundation recipes, food processing tools and equipment, state of professionalism, and knife skills.

### **CULART-134** Credits: 1 **American Regional Cuisine**

The American regions included in this study are: the Eastern Heartland, New England, the South, Louisiana, Far West, Northwest and West Coast, including Hawaii. A brief overview of the geography, history and culture of these various regions sets the stage for an introductory study of the primary ingredients and various cooking methods of each region's iconic dishes. Students prepare a variety of food items in lab. Prerequisite(s): Must be admitted to the Culinary Arts program (10-316-1). Complete CULMGT-112 and CULART-116. Completion of or currently enrolled in CULMGT-105, CULART-103, CULART-135, CULART-136 and CULART-137.

### **CULART-135** Credits: 1 **European and Mediterranean Cuisine**

Students will discuss and prepare Mediterranean and European cuisines, discuss the history of those regions, and the specific equipment and tools needed to prepare the cuisines. Students will adhere to basic kitchen principles of food safety. Prerequisite(s): Must be admitted to the Culinary Arts program (10-316-1). Complete CULMGT-112 and CULART-116. Completion of or currently enrolled in CULMGT-105, CULART-103, CULART-134, CULART-136 and CULART-137.

### **CULART-136** Credits: 1 **Asian Cuisine**

This course provides a general overview of the geography, food history and culture of various areas in Asia, setting the stage for an introductory study of the primary ingredients and cooking methods of the region's traditional dishes. Students prepare a variety of food items in lab. Prerequisite(s): Must be admitted to the Culinary Arts program (10-316-1). Complete CULMGT-112 and CULART-116. Completion of or currently enrolled in CULMGT-105, CULART-103, CULART-134, CULART-135 and CULART-137.

### **CULART-137** Credits: 1 **South and Latin American Cuisine**

Students discuss the history of the Latin American region, prepare dishes from that cuisine, and use specific ingredients, equipment, and tools needed, while adhering to basic kitchen principles of food safety. Prerequisite(s): Student must be admitted to the Culinary Arts program (10-316-1). Complete CULMGT-112 and CULART-116.

### **CULART-138** Credits: 2 **Restaurant Operations**

This course focuses on the concepts of managing a restaurant operation. Roles of management, quality service, cash handling, technology trends, food and beverage pairing, and beverage management are studied in this course. Prerequisite(s): Complete CULART-103 and CULMGT-112. Completion of or currently enrolled in CULART-105.



# CULART – CVTECH

**CULART-139** Credits: 1

## Food Truck Operations

The Food Truck Operations course will expose students to the daily operating functions of running a food truck. Students will have lecture covering the legalities, menu planning, logistics, marketing, preparing the food and serving from the truck for the lab portion of the course. The locations of the truck may vary and the planned menu will change based on the clientele. Each student will rotate through the stations of the truck to experience all aspects of running the business.

**CULART-190** Credits: 2

## Introduction to Culinary Arts

This course is a foundational food lab that focuses on various cooking methods/styles and procedures as they apply to the main food categories. The key topics are sanitation, use of tools and equipment, recipe dissemination, mise en place, and cooking methods. Students will be exposed to meat, fish, poultry, stocks, sauces, vegetable and starch cookery at an introductory level.

## CULMGT – Culinary Management (Department 317)

**CULMGT-101** Credits: 2

### Menu Planning and Design

Students learn to apply the principles of menu planning and menu design as they relate to a variety of hospitality operations. Prerequisite(s): Complete CULMGT-105.

**CULMGT-102** Credits: 2

### Food and Beverage Procurement

The concepts of food and beverage purchasing are studied with emphasis on sourcing, writing specifications and controlling costs. Prerequisite(s): Complete CULMGT-105.

**CULMGT-105** Credits: 3

### Culinary Math and Cost Control

Emphasis is placed on methods used to solve mathematical problems that relate to food service operations. Topics covered include operations with decimals, percents, weights and measures, recipe conversion, menu pricing, food costs, inventories, break-even analysis, and financial statements.

**CULMGT-112** Credits: 2

### Food Service Sanitation

Professional standards and practices in the prevention of food borne illnesses are presented. Students prepare for the National Restaurant Association ServSafe Certification exam.

## CVTECH – Cardiovascular Technology (Department 521)

**CVTECH-102** Credits: 2

### Introduction to CVT

This course will introduce distinctive areas of cardiovascular technology and the role of the technologist. Topics include invasive and noninvasive procedures, department orientation, medical terminology, blood-borne pathogens, medical ethics, emergent situations, and nonpatient-related emergencies. Research papers on a variety of related topics and a group project will be required. Guest speakers and site visits to local healthcare/diagnostic facilities may be scheduled. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1), the Cardiovascular Technology – Echocardiography program (10-521-2) or the EKG Technician program (61-521-1).

**CVTECH-110** Credits: 2

### EKG Analysis

This course will explain the electrical activity of the heart and the various techniques for recording them. The differences between 3- and 12- lead electrocardiograms (EKGs) will be covered. Students will identify waveforms and rhythms, correlate them to the cardiac events and troubleshoot and calibrate equipment. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1), the Cardiovascular Technology – Echocardiography program (10-521-2) or the EKG Technician program (61-521-1).

**CVTECH-115** Credits: 4

### Essentials of Cardiac Care 1

This course will concentrate on the cardiovascular system. The focus will be on the structure and function of a healthy adult heart, fetal development of the cardiac system and its respective changes at birth, and congenital and acquired pathologies. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1), the Cardiovascular Technology– Echocardiography program (10-521-2) or the EKG Certificate (61-521-1)

**CVTECH-117** Credits: 4

### Invasive CVT Fundamentals 1

Students are introduced to the cardiac catheterization laboratory. The various pieces of equipment and specific diagnostic and interventional procedures are presented. The student will learn the typical daily duties of an invasive cardiovascular technologist through didactic and laboratory instruction. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Must be admitted to Cardiovascular Technology – Invasive program (10-521-1).

**CVTECH-118** Credits: 3

### Echocardiography Basics

Echocardiography physics, principles and techniques will be introduced. Ultrasound and Doppler theory; M-Mode, 2D and Doppler echocardiography; instrumentation; artifacts; examination techniques; and physiologic views will be covered. Prerequisite(s): Must be admitted to Cardiovascular Technology – Echocardiography program (10-521-2).

**CVTECH-120** Credits: 2

### CVT Clinical Procedures

This four-week course is the student's first opportunity to observe and gain experience in a healthcare facility. Twelve hours per week are scheduled in the hospital setting under direct supervision observing/participating in all aspects of the cardiac catheterization laboratory technologist's duties. An additional four hours per week are required for on-campus lectures/discussion. Written documentation detailing the clinical phase of instruction will be required. Prerequisite(s): Echo students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-118. Invasive students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-117.

**CVTECH-121** Credits: 2

### Echo Clinical Procedures

This four-week course is the student's first opportunity to observe and gain experience in a healthcare facility. Twelve hours per week are scheduled in the hospital setting under direct supervision observing/participating in all aspects of an echocardiographer's duties. An additional four hours per week are required for on-campus lectures/discussion. Written documentation detailing the clinical phase of instruction will be required. Prerequisite(s): Echo students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-118. Invasive students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-117.

**CVTECH-122** Credits: 3

### Peripheral Vascular Essentials

This course will focus on peripheral vascular anatomy and allow the student to understand the basic steps in endovascular treatment of peripheral vascular disease. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1).

**CVTECH-132** Credits: 3

### Physics of Medicine

This course introduces the theoretical and practical aspects of the physical sciences. The dependence of medical diagnostics and the analogous relationship of the human body to the sciences are emphasized. Topics include flow, pressure, resistance, electronic circuit analysis and Ohm's law. Prerequisite(s): Must be admitted to either the Cardiovascular Technology – Invasive program (10-521-1) or the Anesthesia Technology program (10-541-1). Complete CVTECH-120 or ANTECH-120.

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### CVTECH-133 Credits: 3

#### Cardiovascular Pharmacology

The clinical importance of drug delivery is presented with an emphasis on the most commonly administered cardiovascular drugs, as well as other prophylactic medications. Additionally, the federal drug approval processes, various delivery methods, dose calculations and a review of the nervous system are presented. Prerequisite(s): Complete CVTECH-138. Completion of or currently enrolled in CVTECH-188 and CVTECH-189.

### CVTECH-134 Credits: 3

#### Hemodynamics

The significance of concise and correct procedural hemodynamic data is presented with an emphasis on understanding the concepts and principles underlying hemodynamics. Topics addressed will include: pericardial disease, appropriate equipment selection and troubleshooting, valvular heart disease, interpretation of arterial, atrial and ventricular waveforms, cardiac output measurement, cardiomyopathies, and intracardiac shunt detection. Additionally, the relationship of the cardiovascular and pulmonary systems to hemodynamics is examined with a focus on the principles of PVR, SVR and stroke volume. Prerequisite(s): Complete CVTECH-120.

### CVTECH-135 Credits: 4

#### Essentials of Cardiac Care 2

The structure and function of the major systems of the body are surveyed, with a focus on their interaction and reliance on the cardiovascular system. Lecture studies utilizing models will include cellular, cerebral and nervous, renal, hepatic, pulmonary, lymphatic, endocrine, digestive, muscular, and skeletal systems. Prerequisite(s): Must be admitted to Cardiovascular Technology – Invasive program (10-521-1). Complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-117.

### CVTECH-137 Credits: 4

#### Invasive CVT Fundamentals 2

This course further exposes the student into the profession of the cardiovascular technologist (CVT). Through the utilization of lectures and hands-on laboratory instruction, the student will expand their working knowledge of diagnostic and interventional procedures, hemodynamic monitoring, sterile technique, radiation and personal safety, radiographic imaging principles, specialized technologies, electrophysiology, implantable devices, and radiographic image panning. Prerequisite(s): CVTECH-120.

### CVTECH-138 Credits: 4

#### Invasive CVT Clinical 1

This course presents the student with his or her first opportunity in a direct patient care setting, while beginning to perform the duties of a CVT. Here the student will be able to correlate didactic and laboratory classes with the day-to-day duties of a CVT. Prerequisite(s): Complete CVTECH-120.

### CVTECH-142 Credits: 3

#### Echo Case Review

In this course, multiple cardiac pathologies will be studied and addressed through the presentation of echocardiographic case studies. Students will explore a variety of pathologies and how these anomalies can be evaluated through the utilization of cardiac sonography. This course will primarily involve the presentation of case studies and the assessment of clinical abnormalities as seen by cardiac imaging and advanced Doppler techniques. Prerequisite(s): Complete CVTECH-140, CVTECH-144, CVTECH-145 and CVTECH-149.

### CVTECH-143 Credits: 3

#### Ultrasound Principles and Physics

This course provides the basic knowledge of the physical principles and instrumentation of diagnostic ultrasound. Topics covered in this lecture course include transducers, color-flow imaging methodology, bioeffects and acoustic output labeling standards. Students will be introduced to how diagnostic ultrasound works, how to properly handle artifacts, scan safely, evaluate instrument performance, and ultimately prepare for board and registry examinations. Prerequisite(s): Complete CVTECH-149.

### CVTECH-144 Credits: 3

#### Advanced Echo Practicum

The structure and function of the cardiac system will be addressed by introducing the specialized techniques of noninvasive cardiovascular testing. There will be an evaluation of cardiovascular sonographic anatomy and physiology through advanced measurement techniques of specified hemodynamic parameters. This course will explore various pathologies and how these anomalies are evaluated by echocardiography. The student will learn how to assess clinical abnormalities of the human heart as it is seen by cardiac imaging and advanced Doppler techniques. Prerequisite(s): Complete CVTECH-121.

### CVTECH-145 Credits: 4

#### Echocardiography Fundamentals

The structure and function of the cardiac system will be addressed, as well as how various pathologies and congenital anomalies are demonstrated and evaluated by echocardiography. Students learn how to assess clinical abnormalities of the human heart as it is seen by cardiac imaging, utilizing conventional and echocardiographic stress testing, intravascular. Prerequisite(s): Complete CVTECH-121.

### CVTECH-149 Credits: 2

#### Echocardiography Clinical Experience 1

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the echocardiographic clinical setting. A written journal detailing the clinical phase of the instruction will be required. Prerequisite(s): Complete CVTECH-121.

### CVTECH-185 Credits: 2

#### Invasive CVT Clinical Seminar

Students will discuss with other students the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics, as well as a review of the written journal detailing the clinical phase of instruction. This course will help to prepare students for the written examinations, which lead to credentialing in their chosen specialty. Guest speakers may be scheduled. Resume writing and interview skills will be covered. Prerequisite(s): Complete CVTECH-138.

### CVTECH-188 Credits: 3

#### Invasive CVT Clinical Experience 2

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the clinical setting in the student's choice of cardiovascular technology discipline. Prerequisite(s): Completion of or currently enrolled in CVTECH-185.

### CVTECH-189 Credits: 3

#### Invasive CVT Clinical Experience 3

This course is a continuation of CVTECH-186 and provides the practical application to perfect skills and knowledge through a wider range of cases. Students begin to take a more active and responsible part in the day-to-day tasks associated with clinical duties. Prerequisite(s): Must be admitted to Cardiovascular Technology – Invasive program (10-521-1). Complete CVTECH-188.

### CVTECH-195 Credits: 2

#### Echocardiography Clinical Seminar

Students will discuss the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics as well as a review of the clinical phase of instruction. This course will help to prepare students for the written Registry examination. Guest speakers may be scheduled. Resume writing and interview skills will be covered. Prerequisite(s): Complete CVTECH-149.

### CVTECH-196 Credits: 4

#### Echocardiography Clinical Experience 2

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the echocardiographic clinical setting. Prerequisite(s): Completion of or currently enrolled in CVTECH-195.

### CVTECH-197 Credits: 4

#### Echocardiography Clinical Experience 3

The course is a continuation of CVTECH-196 and provides the practical application to perfect the skills and knowledge through a wider range of cases. Students begin to take a more active and responsible part in the day-to-day tasks associated with their clinical duties. Prerequisite(s): Complete CVTECH-196.

# DCC – DENHYG

## DCC – Digital Content Creation (Department 701)

**DCC-150** **Credits: 3**  
**Intro to Digital Content Creation**

This core course provides an introduction to digital content creation, the process of creating stories for emerging multiplatform delivery. The course examines the importance of traditional video production techniques/applications within emerging content delivery, also the similarities and differences between broadcasting and multiplatform delivery, long- and short-form production, and large/small screen presentation. Learners differentiate between forms via “hands-on exploration.” Students become familiar with the technology used to implement promotional schemes for successful digital content distribution (e.g. via the web, social media outlets and mobile technology). Prerequisite(s): Completion of or currently enrolled in TV-101 and TV-181.

**DCC-152** **Credits: 3**  
**Intermediate Digital Content Techniques**

This course focuses on the principles of design and operation of video systems as incorporated in multimedia, interactive and web design. This includes understanding, choosing and operating appropriate video cameras, digital SLRs, lighting techniques, audio acquisition and non-linear editing. Students will produce and post-produce several productions of increasing complexity for multiplatform delivery as it pertains to digital content creation. Prerequisite(s): Completion of or currently enrolled in TV-105.

**DCC-153** **Credits: 3**  
**Digital Content Creation Practicum**

This course prepares students to work in the digital content field by giving them practical, structured and real-life job experiences in a nonthreatening, student-centric and instructor-led environment. The fundamentals of teamwork, client relations, and self-paced and directed creative applications of technology and organization are emphasized. Job search techniques and job site observations are also discussed. Milwaukee PBS digital and social outlets will serve as practical labs and content repositories for students whenever possible. Prerequisite(s): Completion of or currently enrolled in DCC-152.

**DCC-154** **Credits: 3**  
**Digital Content Engagement**

As new media and technology evolve, students will need to not only problem-solve with current electronic tools, but also with an eye toward the future. This course will focus on the students’ application of their visual content creation skills and understanding of existing hardware and software to design an e-multiplatform presence using those current tools. Additionally, students will be challenged to anticipate the next wave of potential content distributors and plan for seamless multi-versioned delivery of their message using the technology of the future. Prerequisite(s): Completion of or currently enrolled in DCC-153.

**DCC-155** **Credits: 3**  
**Advanced Tech/Digital Content Creation**

Students will learn how to incorporate their basic and intermediary understanding of multiplatform delivery of audio/visual content with the advanced tools of the trade. Multi-versioning of content is emphasized, permitting the student producer to understand how to take concept to creation via air, web, podcasting, social media, etc. Students produce a selected multimedia project and deliver it via these various media outlets. An eye toward future technologies and techniques is emphasized, encouraging students to challenge existing views and develop innovative new solutions. Prerequisite(s): Completion of or currently enrolled in DCC-153 and DCC-154.

**DCC-158** **Credits: 1**  
**Data Content Management**

This course is an introduction to data, metadata and the myriad of media files utilized in digital media storytelling. It introduces the student to concepts associated with the capture, editing, manipulation and distribution of files designed specifically for media and its delivery. Also, the learner will become competent in data asset management, file integration, understanding codecs and resolution, and transcoding and consolidation techniques through practical application in digital audio and video production. Prerequisite(s): Complete DCC-150. Completion of or currently enrolled in DCC-152.

**DCC-159** **Credits: 2**  
**Streaming Content Creation**

This course explores the development, workflow, organization and production of digital streaming media from acquisition to editing to distribution to archive and analytics. Utilizing video streaming and audio podcasting approaches and technologies, the learner will become competent in identifying and using the appropriate digital tools for creating programming for digital consumption with a focus on storytelling and livestreamed events. Prerequisite(s): Complete DCC-150. Completion of or currently enrolled in the DCC-152.

**DCC-170** **Credits: 2**  
**Media Design Elements**

An introductory digital media and TV graphics and design course. Students become familiar with the hardware, software, design and workflow associated with graphics for video storytelling. Utilizing various Adobe Creative Cloud applications, character generators such as Chyron and other video graphics tools, students explore the creation of graphic elements for video, such as lower-thirds, full-screen graphics, layouts for multiplatform delivery methods, assembling a graphic toolkit for their video-based stories. Prerequisite(s): Completion of or currently enrolled in TV-101 and DCC-150.

**DCC-171** **Credits: 1**  
**Digital Engineering Principles**

This course is an introduction to the digital systems, file flow and streaming technologies associated with the delivery of digital transmission of audio and video content over the

web, social platforms and other multiplatform streams. It introduces the student to IT and IP media, NLE architecture, additional concepts associated with digital media delivery, and the process of troubleshooting such systems. Prerequisite(s): Complete DCC-152 and TV-142.

## DENAST – Dental Assistant (Department 508)

**DENAST-302** **Credits: 5**  
**Dental Chairside**

This course prepares dental assistant students to chart oral cavity structures, dental pathology and restorations, and to assist a dentist with basic dental procedures including examinations, pain control, and restorative and cosmetic procedures. Students will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques, and dental procedures using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology. Prerequisite(s): Must be admitted to the Dental Assistant program (30-508-2). Completion of or currently enrolled in DENAST-304, DENAST-305, DENAST-307 and DENHYG-101.

**DENAST-304** **Credits: 2**  
**Dental and General Anatomy**

This course prepares dental assisting students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients. Prerequisite(s): Must be admitted to the Dental Assistant program (30-508-2).

**DENAST-305** **Credits: 2**  
**Applied Dental Radiography**

Students develop skill in operation of X-ray units and in exposing bitewing, periapical, extra oral and occlusal radiographs. Emphasis is placed on protection against X-ray hazards. Students will also process, mount and evaluate radiographs for diagnostic value. In this course, students demonstrate competency on a mannequin. In addition, students will expose bitewing radiographs on an adult patient. Prerequisite(s): Completion of or currently enrolled in DENAST-304 and DENHYG-101.

**DENAST-306** **Credits: 3**  
**Dental Assistant Clinical**

Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography, and Professionalism in a clinical setting with patients. Emphasizes integration of Career Essentials and basic occupational skills. Prerequisite(s): Completion of or currently enrolled in DENAST-302, DENAST-304, DENAST-307, DENHYG-101, DENHYG-113, and either DENHYG-103 or DENAST-305.

**DENAST-307** **Credits: 1**  
**Dental Assistant Professional**

Prepares Dental Assistant students for entering the workforce. Students develop professional appearance and prepare a resume, cover letter,



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and professional development plan. Students learn to work within ethical guidelines and legal frameworks. Prerequisite(s): Must be admitted to the Dental Assistant program (30-508-2).

### DENHYG – Dental Hygiene (Department 508)

#### DENHYG-101 Credits: 1 Dental Health Safety

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. This course is a WTCS aligned course required in both the Dental Hygienist and Dental Assistant programs.

#### DENHYG-102 Credits: 4 Oral Anatomy, Embry, Histology

Prepares Dental Hygiene students to apply detailed knowledge about oral anatomy to planning, implementation, assessment and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head and neck anatomy, and its relationship to tooth development, eruption and health. Prerequisite(s): Complete BIOSCI-177, CHEM-186 and BIOSCI-197 with grade of B- or higher. Complete DENHYG-101. Completion of or currently enrolled in DENHYG-105.

#### DENHYG-103 Credits: 2 Dental Radiography

Prepares dental auxiliary students to operate radiographic equipment and expose bitewing, periapical, extra oral and occlusal images. Emphasis is placed on protection against X-ray hazards. Students also produce, mount and evaluate dental images for diagnostic value. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments. Prerequisite(s): Completion of or currently enrolled in DENHYG-102.

#### DENHYG-105 Credits: 4 Dental Hygiene Process 1

Introduces Dental Hygiene students to the basic technical/clinical skills required of practicing dental hygienists including use of basic dental equipment, examination of patients and procedures within the dental unit. Under the direct supervision of an instructor, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. The course also reinforces the application of dental health safety skills. Prerequisite(s): Must be admitted to Dental Hygiene program (10-508-1). Completion of or currently enrolled in DENHYG-103.

#### DENHYG-106 Credits: 4 Dental Hygiene Process 2

This clinical course builds on and expands the technical/clinical skills student dental hygienists began developing in Dental Hygiene Process 1. Under the direct supervision of an instructor, students apply patient care assessment, planning,

implementation and evaluation skills to provide comprehensive care for calculus case type 1 and 2 patients and perio case patients. Dental Hygiene Process 2 introduces the application of fluoride and desensitizing agents, whole mouth assessments, comprehensive periodontal examinations, application of sealants, and patient classification. Students also begin performing removal of supragingival stain, dental plaque, calcified accretions and deposits. In addition, they gain further experience in exposing radiographs on patients. The course also reinforces the application of Dental Health Safety skills. Prerequisite(s): Complete DENHYG-102, DENHYG-103 and DENHYG-105.

#### DENHYG-107 Credits: 1 Dental Hygiene Ethics and Professionalism

Helps student dental hygienists develop and apply high professional and ethical standards. Students apply the laws that govern the practice of dental hygiene to their work with patients, other members of a dental team and the community. Emphasis is placed on maintaining professionalism, which includes confidentiality and informed consent. Prerequisite(s): Completion of or currently enrolled in DENHYG-101.

#### DENHYG-108 Credits: 3 Periodontology

This course prepares student dental hygienists to assess the periodontal health of patients, plan prevention and treatment of periodontal disease, and to evaluate the effectiveness of periodontal treatment plans. Emphasis is placed on the recognition of the signs and causes of periodontal disease and on selection of treatments modalities that minimize risk and restore periodontal health. Prerequisite(s): Completion of or currently enrolled in DENHYG-106.

#### DENHYG-109 Credits: 1 Cariology

This course focuses on the characteristics and contributing factors of dental decay. Dental Hygiene students help patients minimize caries risk by developing treatment plans, communicating methods to patients and evaluating treatment results. Prerequisite(s): Complete BIOSCI-197 and CHEM-186. Completion of or currently enrolled in DENHYG-110 and DENHYG-106.

#### DENHYG-110 Credits: 2 Nutrition and Dental Health

Prepares student dental hygienists to counsel patients about diet and its impact on oral health. Students learn to distinguish between balanced and unbalanced diets and to construct diets that meet the needs of patients with compromised dental/oral health. Students also learn to counsel patients about the effect of eating disorders on dental health. Prerequisite(s): Completion of or currently enrolled in DENHYG-101.

#### DENHYG-111 Credits: 3 General and Oral Pathology

This course prepares the student dental hygienist to determine when to consult, treat or refer clients with various disease, infection

or physiological conditions. Students learn to recognize the signs, causes and implications of common pathological conditions including inflammatory responses, immune disorders, genetic disorders, developmental disorders of tissues and cysts, oral tissue trauma, and neoplasm of the oral cavity. Prerequisite(s): Complete DENHYG-102, DENHYG-103 and DENHYG-105. Must be enrolled in a Dental Hygiene program in an accredited technical, community or four-year college or with instructor's permission.

#### DENHYG-112 Credits: 5 Dental Hygiene Process 3

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process 2. In consultation with the instructor, students apply independent problem-solving skills in the course of providing comprehensive care for calculus case type 1, 2 and 3 patients and case type 0, I, II and III patients. Dental Hygiene Process 3 introduces root detoxification using hand and ultrasonic instruments, laser bacterial reduction, selection of dental implant prophylaxis treatment options, and administration of chemotherapeutic agents. Students also adapt care plans to accommodate patients with special needs. Prerequisite(s): Complete DENHYG-106, DENHYG-108, DENHYG-109 and DENHYG-110. Completion of or currently enrolled in DENHYG-111.

#### DENHYG-113 Credits: 2 Dental Materials

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances. This course is aligned to serve students in the Dental Hygienist and Dental Assistant programs. Prerequisite(s): Completion of or currently enrolled in DENHYG-102 or DENAST-302.

#### DENHYG-114 Credits: 2 Dental Pharmacology

Prepares student dental hygienists to select safe and effective patient premedication within the scope of dental hygiene practice. Students will also learn to recognize potential pharmacological contraindications for specific patients and to take measures to avoid negative impact or alert other members of the dental team to possible negative impact. Prerequisite(s): Must be admitted to the Dental Hygiene program (10-508-1). Complete CHEM-186 and BIOSCI-197. Completion of or currently enrolled in DENHYG-106.

#### DENHYG-115 Credits: 2 Community Dental Health

This course prepares the dental hygienist student to play a proactive role in improving the dental health of community members of all ages. Students perform and interpret dental health research to determine community dental health needs. Prerequisite(s): Completion of or currently enrolled in DENHYG-112.



# DENHYG – DIETNT

**DENHYG-117** Credits: 4

## Dental Hygiene Process 4

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process 3. With feedback from the instructor, students manage all aspects of cases in the course of providing comprehensive care for calculus case type 0, 1, 2 and 3 patients and for perio case type 0, I, II and III patients. Emphasizes maximization of clinical efficiency and effectiveness. Prepares student dental hygienists to demonstrate their clinical skills in a formal examination situation. Prerequisite(s): Completion of or currently enrolled in DENHYG 113, DENHYG-114 and DENHYG 118.

**DENHYG-118** Credits: 2

## Dental Anxiety and Pain Management

This course prepares the student dental hygienist to work within the scope of dental hygiene practice to manage anxiety and pain for dental patients. Students learn to prepare and administer local anesthesia and nitrous oxide safely. The course also addresses the recommendation of alternative pain control measures. Prerequisite(s): Completion of or currently enrolled in DENHYG-112 and DENHYG-114.

**DENHYG-130** Credits: 1

## Dental Hygiene: Transition Into Practice

This course will prepare students to transition from the dental hygiene educational setting to the career of dental hygiene. Students will prepare for various licensure examinations, prepare for the job search, develop an understanding of cultural competency and the benefits of an ADHA membership, examine how to manage workplace conflict resolution, understand dental insurance related concepts, and investigate additional DH degree completion pathways. Prerequisite(s): Completion of or currently enrolled in DENHYG-117.

**DENHYG-165** Credits: 1

## Clinical Dental Hygiene Practicum

This skills laboratory will offer students the opportunity to enhance patient treatment skills developed during DENHYG-105, DENHYG-106 and DENHYG-112. Instruction will be tailored to individual student skills and abilities along with patient treatment needs. Prerequisite(s): Must be admitted to the Dental Hygiene program (10-508-1). Complete DENHYG 102, DENHYG 103 and DENHYG 105.

## DIESEL – Diesel (Department 412)

**DIESEL-301** Credits: 2

### Diesel Fuel Systems

Students will perform diagnosis, testing and repair procedures on diesel engine fuel system mechanical components. Prerequisite(s): Must be admitted to the Diesel and Powertrain Servicing program (31-412-3).

**DIESEL-306** Credits: 5

### Engine Construction and Installation

Students will perform maintenance, adjustments, diagnosis, testing and engine construction. Students will remove and install an engine using the appropriate service manual procedures. Prerequisite(s): Complete DIESEL-301 and DIESEL-307.

**DIESEL-307** Credits: 5

### Electrical/Electronic Shop

Students become proficient in the use of digital volt/ohm meters (DVOM) and specialized test equipment used for diagnosing electrical/electronic systems. Students will perform diagnosis, testing and repairs using proper service manual procedures. Prerequisite(s): Must be admitted to the Diesel and Powertrain Servicing program (31-412-3).

**DIESEL-308** Credits: 1

### CNG Engine Operations Heavy-Duty Application

This course covers the principle of operation, maintenance and diagnosis of heavy-duty CNG engines. It utilizes the Cummins ISL-G engine as the basis for the instruction. Prerequisite(s): Complete DIESEL-301 and DIESEL-307.

**DIESEL-319** Credits: 5

### Driveline Components

Students will perform service procedures on heavy-duty clutch assemblies, manual transmissions, automatic transmissions, differentials and power dividers. Service procedures include maintenance, adjustments, diagnosis, testing, removal, disassembly, assembly and installation. Prerequisite(s): Completion of or currently enrolled in DIESEL-307 and DIESEL-345.

**DIESEL-333** Credits: 2

### Heavy Truck HVAC Systems

Students will learn the theory and operation of vehicle heating, ventilation and air conditioning (HVAC) systems. Manual and electronic controls, air distribution, and A/C system operation are the focus. Students will learn federal and state laws that pertain to refrigerant usage in vehicle A/C systems. This includes identifying, recycling, recovering, storing and selling refrigerants. Prerequisite(s): Complete DIESEL-307.

**DIESEL-338** Credits: 2

### Emission Control Systems

Students perform diagnosis and testing of emission systems on mechanical and electronically controlled diesel engines. There will be an emphasis on computer controlled fuel system diagnosis, testing and repair. Prerequisite(s): Complete DIESEL-307 and DIESEL-301.

**DIESEL-341** Credits: 5

### Front-End, Brake and Suspension Systems

Students will perform diagnosis, testing and repair procedures of various types of steering and suspension systems, wheel alignment, and heavy truck brake systems. Course content

includes ABS (anti-lock brake systems) diagnosis, testing and repair. Prerequisite(s): Complete DIESEL-307.

**DIESEL-345** Credits: 2

### Preventive Maintenance

Students will perform preventive maintenance inspections (PMI) on vehicles using industry standard procedures. Students will gain an understanding of the proper materials, procedures, safe handling and documentation needed to perform a PMI. Prerequisite(s): Completion of or currently enrolled in DIESEL-307 and DIESEL-319.

## DIETNT – Dietetic Technician (Department 313)

**DIETNT-102** Credits: 3

### Public Health Nutrition

Integrates the critical nature of nutrition in maintaining healthy populations. Learner examines basic research, nutrition assistance, food aid, nutrition education, school meals, food fortification, assessment and surveillance. Public health strategies target populations and focus on prevention. Learner also identifies strategies for reducing the consequences of disparities. Prerequisite(s): Complete HEALTH-101, HEALTH-104 and HEALTH-110.

**DIETNT-106** Credits: 2

### Food Service Sanitation

Professional standards and practices in the prevention of foodborne illnesses are presented. Students prepare for the National Restaurant Association ServSafe Certification exam. FDA Food Code is reviewed. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

**DIETNT-108** Credits: 3

### Food Service Management 1

Basic principles of procurement, production, distribution and service as well as applied management principles required to deliver food and nutrition programs are studied. Prerequisite(s): Completion of or currently enrolled in DIETNT-106 or CULMGT-112 or the ServSafe Certificate.

**DIETNT-109** Credits: 3

### Food Science

Students utilize scientific and medical nutrition therapy principles involved in the preparation of food to provide optimum nutrition and palatability. Laboratory preparation techniques emphasize food quality, sanitation and safety. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

**DIETNT-118** Credits: 1

### Food Service Management 1 Coordinated Practice

Basic principles of food service management, human resource management and sanitation are applied in a clinical setting. This course meets the food service management requirement

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of the Dietary Manager (61-313-1) program. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) and instructor consent. Complete one of the following courses: CULART-100, CULMGT-112 or DIETNT-106. Completion of or currently enrolled in DIETNT-108.

### **DIETNT-120** **Credits: 3** **Nutrition for Living**

This is an internet/Blackboard course focusing on practical solutions for everyday nutritional needs. Nutrition and menu planning tips will be reviewed for preventable diseases and the lifecycle.

### **DIETNT-123** **Credits: 1** **Dietetic Technician Orientation**

The policies of MATC, the Healthcare Pathway, the Nutrition and Dietetic Technician program, and the Academy of Nutrition and Dietetics are explained. Students identify and observe standards of practice to function with the healthcare team and to understand the healthcare system. Math calculations and vital signs used in nutritional assessment are introduced. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

### **DIETNT-124** **Credits: 3** **Medical Nutrition Therapy 1**

Students learn to access, plan, implement and evaluate the nutritional and educational needs of individuals at low to moderate nutritional risk. Prerequisite(s): Must be admitted to Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-151 and DIETNT-123. Completion of or currently enrolled in DIETNT-152 and DIETNT-160.

### **DIETNT-125** **Credits: 4** **Medical Nutrition Therapy 2**

A continuation of Medical Nutrition Therapy (MNT) 1, with emphasis on conditions of moderate to high nutritional risk. Students also evaluate the relevant scientific literature and develop personal resource files for professional practice. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician Program (10-313-1). Complete DIETNT-124 and DIETNT-134.

### **DIETNT-134** **Credits: 1** **Medical Nutrition Therapy 1**

**Coordinated Practice**  
Students learn through clinic activities to assess, plan, implement and evaluate the medical nutrition therapy (MNT) for conditions in adults at low to moderate risk in acute healthcare facilities. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-123 and DIETNT-151 with a grade of C or higher. Completion of or currently enrolled in DIETNT-152 and DIETNT-160.

### **DIETNT-135** **Credits: 2** **Medical Nutrition Therapy 2**

**Coordinated Practice**  
Students obtain clinical experiences in coordination with DIETNT-125 didactic

learning activities in the classroom. Students learn, through clinic activities, to assess, plan, implement and evaluate the medical nutrition therapy (MNT) of patients in acute care, long-term care and outpatient settings. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-123, DIETNT-124, DIETNT-151 and DIETNT-152. Completion of or currently enrolled in DIETNT-125.

### **DIETNT-136** **Credits: 3** **Medical Nutrition Therapy Field Experience**

Through clinical experiences, students apply medical nutrition therapy and community principles in a healthcare facility or community health program. Career opportunities and preparation for the Commission on Dietetic Registration (CDR) registration exam will be discussed in a lecture format. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-106, DIETNT-107, DIETNT-123, DIETNT-151, DIETNT-160, DIETNT-108, DIETNT-118, DIETNT-124, DIETNT-134, DIETNT-152, DIETNT-156, DIETNT-166, DIETNT-125, DIETNT-135, DIETNT-157, DIETNT-167 and DIETNT-155. Completion of or currently enrolled in DIETNT-146 and DIETNT-170.

### **DIETNT-146** **Credits: 3** **Food and Nutrition Management**

**Field Experience**  
Through clinical experiences, students apply management principles by completing department projects according to pertinent regulatory standards. Career opportunities and preparation for the Commission on Dietetic Registration (CDR) registration exam will be discussed in a lecture format. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-106, DIETNT-107, DIETNT-123, DIETNT-151, DIETNT-160, DIETNT-108, DIETNT-118, DIETNT-124, DIETNT-134, DIETNT-152, DIETNT-156, DIETNT-166, DIETNT-125, DIETNT-135 and DIETNT-157. Completion of or currently enrolled in DIETNT-136 and DIETNT-170.

### **DIETNT-151** **Credits: 4** **Nutrition for Dietetics**

This course is a study of nutrients and the nutritional care process, including application to a clinic/lab supervised by a qualified preceptor. This course meets the nutrition care requirement of the Dietary Manager program (61-313-1). Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

### **DIETNT-152** **Credits: 3** **Physiology for Dietetics**

The physiology of human organ systems will be studied as it relates to nutrient requirements in health and disease. Organ systems emphasized include renal, liver, gastrointestinal, musculoskeletal, endocrine, nervous, sensory, lymphatic, respiratory and cardiovascular.

Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Completion of or currently enrolled in DIETNT-160.

### **DIETNT-155** **Credits: 3** **Community Nutrition**

This course exposes the student to the available nutrition and health resources in the community including the utilization of local, state, and federal nutrition education and food supplement programs. It prepares the student to identify the nutritional and educational needs of community groups to plan and develop culturally appropriate nutrition interventions that involve health promotion and disease prevention. The student learns through material discussions, service learning projects, guest speakers, skill-building activities and field trips. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) or Community Health and Nutrition Navigator program (10-539-3). Complete DIETNT-151 or HEALTH-110.

### **DIETNT-156** **Credits: 2** **Nutrition in the Life Cycle**

The nutrient and nutritional counseling needs for normal growth and optimal health throughout the life cycle are explored. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) or the Community Health and Nutrition Navigator program (10-539-3). Completion of or currently enrolled in DIETNT-151 or HEALTH-110.

### **DIETNT-157** **Credits: 3** **Food Service Management 2**

Students learn management techniques in planning, organizing, controlling, delegating and communicating to meet the needs of the various healthcare systems and their regulatory agencies. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-108, DIETNT-118 and DIETNT-106 or ServSafe Certification.

### **DIETNT-160** **Credits: 1** **Medical Terminology for the Dietetic Technician**

Students study the components of medical words to learn medical terminology for communication with the members of the healthcare team. Emphasis is placed on recognition, pronunciation, definition and spelling of terms and abbreviations. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

### **DIETNT-166** **Credits: 1** **Nutrition in the Life Cycle: Coordinated Practice**

The nutrient and nutritional counseling needs for normal growth and optimal health throughout the life cycle are explored. Students develop and implement teaching plans for the various age groups in the clinical experience. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Completion of or currently enrolled in DIETNT-156.

# DIETNT – ECON

## **DIETNT-167** Credits: 2 **Food Service Management 2** **Coordinated Practice**

Through clinic experiences, students learn modern management techniques to select and train employees, maintain departmental records, purchase food and supplies, supervise meal service, plan meetings, analyze, correct problems, and develop interdepartmental communication. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-108, DIETNT-118 and DIETNT-106 or ServSafe Certification. Completion of or currently enrolled in DIETNT-157.

## **DIETNT-170** Credits: 2 **Nutritional Counseling Skills**

The role of the nutrition therapist is studied to develop counseling relationships with clients in order to achieve behavior change for improved nutritional health. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) or the Community Health and Nutrition Navigator program (10-539-3).

## **DLABT – Dental Technician** **(Department 507)**

### **DLABT-102** Credits: 5 **Dental Anatomy**

Theoretical and practical study of dentition. The focus of this course is the study of anatomy, morphology, structure, and function of dentition and the oral cavity including functional waxing techniques and reproduction of anatomical forms. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-113 and either ENG-195 or ENG-201.

### **DLABT-111** Credits: 5 **Intro to Complete Dentures**

Theoretical and practical study. This course is an introduction to complete dentures. The focus of this course is on removable techniques with complete denture fabrication. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Complete DLABT-102 and DLABT-113 with a minimum grade of C or higher. Completion of or currently enrolled in DLABT-114 and either ENG-195 or ENG-201.

### **DLABT-113** Credits: 2 **Dental Technology Materials**

Theoretical study of dental technology related materials. Focus will include guidelines regarding OSHA, NADL and ADA. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-102, then choose either ENG-195 or ENG-201.

### **DLABT-114** Credits: 1 **Principle of Occlusion**

This course addresses the principles of occlusion and their application to fabrication of dental prosthesis. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1).

Complete DLABT-102 and DLABT-113 with grade of C or higher. Completion of or currently enrolled in DLABT-111 and choose either ENG-195 or ENG-201.

### **DLABT-115** Credits: 2 **CAD/CAM in Dentistry**

Introduces the theory and practice of fabricating dental prosthesis digitally through the use of computer-aided design/computer-aided manufacturing. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Complete DLABT-111 and DLABT-114. Complete either ENG-195 or ENG-201. All courses listed must have a minimum grade of C or higher. Completion of or currently enrolled in DLABT-121.

### **DLABT-117** Credits: 1 **Dental Tech Professionalism**

Highlights ethical, legal and historical aspects of dentistry and dental lab technology with a focus on dental laboratory management techniques. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Complete DLABT-121 and DLABT-115. Complete either ENG-195 or ENG-201 all courses listed must have a minimum grade of C or higher. Completion of or currently enrolled in DLABT-129.

### **DLABT-121** Credits: 5 **Intro to Crown and Bridge**

Theoretical and practical study. This course is an introduction to fixed prosthodontics. The focus of this course is on crown and bridge techniques with metal-based restorations. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Complete DLABT-111 and DLABT-114. Complete either ENG-195 or ENG-201. All courses listed must have minimum grade of C or higher. Completion of or currently enrolled in DLABT-115.

### **DLABT-129** Credits: 5 **All Ceramic Techniques**

Theoretical and practical study. This course is an introduction to fixed prosthodontics. The focus of this course is on crown and bridge techniques with all ceramic based restorations. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Complete DLABT-121 and DLABT-115. Complete either ENG-195 or ENG-201. All courses listed must have minimum grade of C or higher. Completion of or currently enrolled in DLABT-117.

## **DMS – Diagnostic Medical** **Sonography** **(Department 526)**

### **DMS-200** Credits: 3 **Intro to DMS**

Introduces learners to the field of diagnostic medical sonography. Explores the duties and functions of the diagnostic medical sonographer as well as the historical background. Learners examine the other imaging modalities as they relate to sonography. Includes principles of patient care, and legal and ethical issues related to sonography.

Prerequisite(s): Must be admitted to the Cardiovascular Technology – Echocardiography program (10-521-2) or the Diagnostic Medical Sonography program (10-526-2).

### **DMS-203** Credits: 1 **Scanning With Proficiency**

Prepares learners for the rigors of clinical imaging by performing timed abdominal and gynecological competencies. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-207, DMS-208 and DMS-221.

### **DMS-207** Credits: 4 **Abdominal Sonography**

Prepares learners to perform ultrasounds of the abdominal organs including liver, gallbladder, biliary tree, pancreas, spleen, urinary tract, aorta and retroperitoneum. Emphasis is placed on recognizing the anatomy and pathology of the abdominal organs. Practice scan sessions included. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-200, BIOSCI-177 and BIOSCI-179.

### **DMS-208** Credits: 3 **OB/GYN Sonography 1**

Prepares learners to perform ultrasounds of the nongravid uterus and the first-trimester pregnancy. Explores the anatomy, physiology and pathology of the female reproductive system as well as intrauterine and ectopic pregnancies. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete BIOSCI-177 and BIOSCI-179. Completion of or currently enrolled in DMS-200.

### **DMS-209** Credits: 2 **DMS Clinical Experience 1**

Opportunities to apply scanning skills in a clinical setting. Students concentrate efforts on ultrasound examination of the abdominal organs. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-207, DMS-208 and DMS-221.

### **DMS-210** Credits: 2 **Cross-Sectional Anatomy**

Introduces cross-sectional anatomy as related to diagnostic medical sonography. Includes correlating images from other imaging modalities. Prerequisite(s): Must be admitted to the Radiography program (10-526-1) or the Diagnostic Medical Sonography program (10-526-2). Complete BIOSCI-179 or RADT-193.

### **DMS-211** Credits: 2 **Superficial Sonography**

Investigates superficial structure imaging. Includes anatomy, pathophysiology and sonographic evaluation. Prepares learner to perform ultrasounds of the thyroid, breast, male reproductive system, musculoskeletal system and GI tract. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-207, DMS-221 and DMS-210.



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### **DMS-212 Credits: 3**

#### **OB/GYN Sonography 2**

Prepares learners to perform ultrasounds of the second- and third-trimester pregnancy. Explores the anatomy, physiology and pathology of the female pelvis and the developing fetus. Learners will be exposed to interventional procedures related to pregnancy. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-208.

### **DMS-217 Credits: 2**

#### **Registry Review**

Review of the competencies covered in the Diagnostic Medical Sonography program. This course prepares students to sit for nationally recognized registry exams, test-taking strategies and skills that will equip the graduates for entry-level employment. Prerequisite(s): Must be enrolled in Diagnostic Medical Sonography program (10-526-2). Complete DMS-213.

### **DMS-220 Credits: 5**

#### **DMS Clinical Experience 2**

This second-level clinical experience course continues to prepare DMS students to perform sonographic exams on patients with varying degrees of assistance. Students apply scanning skills in a healthcare setting while adhering to the sonographers code of ethics. Students continue to improve technical skills while accepting more responsibilities during scanning procedures. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-209.

### **DMS-221 Credits: 3**

#### **Sonography Physics 1**

Introduces physics and instrumentation relevant to diagnostic medical sonography. Learners explore how principles of sound propagation in tissues create a sonographic image. Prerequisite(s): Must be enrolled in the Cardiovascular Technology – Echocardiography program (10-521-2) or the Diagnostic Medical Sonography program (10-526-2). Completion of or currently enrolled in DMS-200.

### **DMS-222 Credits: 2**

#### **Sonography Physics 2**

Continues the study of physics and instrumentation relevant to diagnostic medical sonography. The laboratory component of this course introduces the student to the concepts of ultrasound instrumentation, an introduction to ultrasonic scanning technique, and maintenance of ultrasound equipment. Prerequisite(s): Must be enrolled in the Cardiovascular Technology – Echocardiography program (10-521-2) or the Diagnostic Medical Sonography program (10-526-2). Complete DMS-221.

### **DMS-223 Credits: 3**

#### **Vascular Imaging 1**

Introduces the principles of vascular sonographic imaging. Learners perform a variety of peripheral vascular arterial and venous duplex exams. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-221.

### **DMS-224 Credits: 3**

#### **Vascular Imaging 2**

Prepares learners to perform abdominal vascular and physiologic peripheral vascular exams. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-223.

### **DMS-225 Credits: 3**

#### **DMS Clinical Experience 3**

This third-level clinical experience course continues to prepare DMS students to perform sonographic exams on patients with limited direct and mainly indirect supervision. Students apply scanning skills in a healthcare setting while adhering to the sonographers code of ethics. Students continue to improve technical skills while accepting more responsibilities during scanning procedures. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-220. Completion of or currently enrolled in DMS-229.

### **DMS-229 Credits: 2**

#### **DMS Clinical Experience 4**

This final clinical experience course is a continuation of DMS-225 that requires DMS students to integrate and apply all knowledge learned in previous courses to the production of high-quality images in the clinical setting. DMS students perform sonographic exams on patients with limited direct and mainly indirect supervision. Students apply scanning skills in a healthcare setting while adhering to the sonographers code of ethics. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-220. Completion of or currently enrolled in DMS-225.

## **ECON – Economics (Department 809)**

### **ECON-195 Credits: 3** **Economics**

This course is designed to give an overview of how market-oriented economic systems operate, and it surveys the factors which influence national economic policies. Basic concept and analysis are illustrated by reference to verity of contemporary problems and public issues. Concepts include scarcity, alternative economic

system, growth, supply and demand, monetary and fiscal policy, inflation, unemployment, ecological, and global economic issues.

### **ECON-201 Credits: 3**

#### **Principles of Microeconomics**

This course covers the following topics: price mechanisms, price determination in the products and factors markets, analysis of market structures, business decisions with regard to cost analysis, output determinations, and employing factors of production. Other topics such as regulation vs. deregulation, international trade and economic development will also be discussed.

### **ECON-202 Credits: 3**

#### **Principles of Macroeconomics**

This course covers national income and product analysis, financial institutions and the Federal Reserve System, and macroeconomic models and their application to the problems of inflation, unemployment and business fluctuations. The lines between economic problems, theory and public policy are emphasized.

### **ECON-215 Credits: 3**

#### **Economics of Discrimination**

Economic theory is used to examine discrimination with an emphasis on the labor market and inequality in the U.S. Topics include fundamental economic theory, the labor market, the basis and measurement of discrimination, inequality, and the laws and policies relating to discrimination.

### **ECON-216 Credits: 3**

#### **Urban Economics**

Urban Economics provides research about the built environment. Using the tools of economic analysis, Urban Economics describes the outcomes of public and private decision-making with regard to land use and clusters of populations and their transportation. Prerequisite(s): Complete ECON-195, ECON-201 or ECON-202.

### **ECON-218 Credits: 3**

#### **International Economics**

Explores theories of trade, barriers and benefits to trade, exchange rate systems, the role of central banks, trade deficits and surpluses, and balance of payments.

### **ECON-219 Credits: 3**

#### **Personal Finance and Consumer Economics**

This course is designed to provide the necessary knowledge to make the student more informed about personal finances and to help develop lifelong habits in planning, spending, saving and consumption decision-making.

### **ECON-223 Credits: 3**

#### **Ecological Economics**

This course explores basic economic principles in the market-oriented global economy, including the limits to growth resulting from limited natural resources. Analyzes the mixed economy, which is a combination of private enterprise and government actions. Explains how an economy can achieve both a comfortable standard of living and ecological sustainability.



# ECON – ELCTEC

**ECON-225**

**Credits: 3**

## **Healthcare Economics**

Healthcare Economics is a basic course in economics with an emphasis in healthcare. Topics include supply and demand, cost/benefit, resource allocation, and production as well as the conditions under which healthcare is provided by government.

## **EDF – Education Foundation (Department 809)**

**EDF-249**

**Credits: 2**

### **Orientation to Urban Teaching**

This course is designed for students who are interested in exploring a career in urban K-12 teaching. Students learn about themselves in relationship to the children they may teach. Students explore different licensure areas and the pathways toward becoming a teacher. Readings and topics are chosen in order to explore how race, class and ethnicity affect the dynamics of teaching-learning relationships in schools.

**EDF-253**

**Credits: 3**

### **Issues in Urban Teaching**

This course is designed to expose you to issues in urban education. Some of you may have already spent considerable time in classrooms as teacher aides or paraprofessionals, or maybe even as teachers. The majority of us spent time in schools as students. Now we are preparing to enter the vital and rewarding field of teaching. As we prepare for this role reversal, we must have a deeper understanding of schooling, particularly in urban settings, so that we can begin to tackle the challenges we will face both within and outside of the classroom. Throughout this course we will challenge one another to grow not only in our understanding of the issues that affect urban education, but also insofar as our own personal philosophies of teaching are constantly evolving. Service-learning is a vehicle we will use to get hands-on experience tackling issues impacting urban education. Prerequisite(s): Complete EDF-249 or SOCSOCI-249 with a grade of C or higher.

**EDF-254**

**Credits: 2**

### **Field Experience in Urban K-12 Classrooms**

This is a field experience/service-learning course which allows students who are completing the Teacher Education track to (1) deepen their understanding of how race, language and socioeconomic status impact teaching and learning, (2) observe and participate in classroom management strategies, (3) become familiar with the organization, culture, and curriculum of schools and classrooms in the Milwaukee Public School system. Students complete 40+ hours of observation which is accepted towards fieldwork requirements at several schools of education. Prerequisite(s): Complete EDF-253 or SOCSOCI-253. TB test and criminal background checks are required for school placement

**EDF-255**

**Credits: 3**

### **Introduction to Teaching**

This course is intended for students who wish to pursue a degree in education at a four-year college. The course introduces students to the profession of education and the roles of teachers. It provides an understanding of the context in which education is delivered in culturally pluralistic settings and an opportunity to gain knowledge and experience in the interpersonal, observational and organizational skills that underlie teaching. Prerequisite(s): Complete EDF-253. Completion of or currently enrolled in EDF-254.

## **ELCTEC – Electronics (Department 605)**

**ELCTEC-100**

**Credits: 2**

### **Electronics Internship/Co-Op 1**

This course provides the first opportunity to gain on-the-job training related to the electronics program in which the student is enrolled. The activities will be coordinated between the employer, the student and the MATC internship/co-op coordinator. Prerequisite(s): Complete ELCTEC-110 and ELCTEC-130.

**ELCTEC-101**

**Credits: 2**

### **Electronics Internship/Co-Op 2**

This course provides the second opportunity to gain on-the-job training related to the electronics program in which the student is enrolled. The activities will be coordinated between the employer, the student and the MATC internship/co-op coordinator. Prerequisite(s): Complete ELCTEC-100.

**ELCTEC-105**

**Credits: 3**

### **Advanced Circuits (DC/AC 3)**

Advanced circuit analysis concepts and techniques that are used by electronic engineering technologists are emphasized in this course. Advanced AC complex number-based circuit analysis techniques are applied to series-parallel circuits, superposition, complex power, nodal analysis, Thevenin's and Norton's theorems, ideal operational amplifier circuits, circuits containing equivalent circuit models of sensors and actuators, frequency response analysis, and balanced three-phase circuits. Laboratory, simulation and documentation experiences reinforce the lecture material. Prerequisite(s): Complete ELCTEC-111 or ELCTEC-116 and ELCTEC-120 or ELCTEC-118 and MATH-197 or MATH-230. Completion of or currently enrolled in ELCTEC-121.

**ELCTEC-106**

**Credits: 3**

### **Advanced Electronics (ECA)**

This course covers advanced topics associated with the analysis of electronic devices and circuits. Fundamental mathematical modeling and applications of solid-state devices and operational amplifiers include device characteristics of p-n junction diodes, bipolar junction transistors (BJT), and metal oxide semiconductor field effect transistors (MOSFET); analysis of diode circuits, linear

power supplies, and transistor switching circuits; and an introduction to design in the context of single-stage MOSFET amplifiers and operational amplifiers in standard configurations. Laboratory, simulation and documentation experiences reinforce the lecture material. Prerequisite(s): Complete ELCTEC-105 or ELCTEC-112 and ELCTEC-121.

**ELCTEC-110**

**Credits: 4**

### **DC/AC Electronics 1**

An introductory course that presents the scientific foundation used throughout electronics technology. Topics include DC/AC forms of current, voltage, resistance, capacitance, inductance, and power. Troubleshooting practices will be emphasized and computer technologies will be used to enhance abstract theory. Students perform laboratory experiments and prepare technical reports. Prerequisite(s): Completion of or currently enrolled in MATH-115, MATH-202, MATH-230, MATH-231 or MATH-232.

**ELCTEC-111**

**Credits: 3**

### **DC/AC Electronics 2**

An extension of and enhancement to DC/AC Electronics 1. More advanced topics such as complex networks, applicable theorems, polyphase systems and passive filters will be discussed. Computer simulation software will be used to reinforce theoretical analyses. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115. Completion of or currently enrolled in MATH-116.

**ELCTEC-120**

**Credits: 4**

### **Electronic Devices**

The basic operating principles of diodes, transistors, thyristors and linear integrated circuits are presented as they are used in rectifier, amplifier and oscillator circuits. Theory is reinforced with laboratory assembly, measurements, troubleshooting and technical report writing. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115. Completion of or currently enrolled in MATH-116 and ELCTEC-111.

**ELCTEC-121**

**Credits: 3**

### **Electronic Devices Advanced**

This course is a continuation of ELCTEC-120 with additional emphasis on transistor models, IC amplifiers, oscillators, active filters, integrators and differentiators, waveshaping, and control circuits. Circuit theory is reinforced with laboratory activities and technical report writing. Prerequisite(s): Complete ELCTEC-118 or ELCTEC-120.

**ELCTEC-130**

**Credits: 3**

### **Digital Electronics**

This is an introductory course in digital logic devices and circuits. Students learn the basic logic functions, sequential and synchronous logic circuitry, general applications, and troubleshooting techniques through hands-on lab work. The computer will be used to generate circuit simulations and technical reports. Prerequisite(s): Completion of or currently enrolled in MATGEN-110, MATH-115, MATH-202, MATH-230 or MATH-231.

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### **ELCTEC-131 Credits: 3**

#### **Advanced Digital Electronics**

This is a continuation of Digital Electronics. It provides an in-depth study of logic family specifications, sequential circuits, A/D and D/A, as well as PLD operation and design. Design procedures and design verifications will be demonstrated. Laboratory work will help students gain skill and competence in digital circuit design and troubleshooting. Prerequisite(s): Complete ELCTEC-117 or ELCTEC-130. Completion of or currently enrolled in ELCTEC-120.

### **ELCTEC-133 Credits: 4**

#### **Medical Imaging Equipment**

Students develop a foundation in the field of medical imaging with a focus on X-ray systems service. Topics include applications and equipment theory for radiographic, fluoroscopic, vascular, and cardiac imaging systems. Classroom knowledge is enhanced through hands-on lab activities that replicate real work situations. Students will calibrate, troubleshoot and repair a variety of radiographic and mammographic equipment. Prerequisite(s): Complete ELCTEC-134, ELCTEC-137 and BIOSCI-177. Completion of or currently enrolled in ELCTEC-176.

### **ELCTEC-134 Credits: 4**

#### **Biomedical Instrumentation**

Students are introduced to the fundamentals of biomedical instrumentation and associated technologies. System and safety tests and measurements are performed using typical equipment found in area healthcare facilities. Students reinforce theoretical concepts while developing practical troubleshooting skills. Prerequisite(s): Complete ELCTEC-111 or ELCTEC-116 and ELCTEC-120 or ELCTEC-118 and BIOSCI-177 and ENG-197 or ENG-208. Completion of or currently enrolled in ELCTEC-140.

### **ELCTEC-137 Credits: 2**

#### **Biomedical Electronics Technician Practicum 1**

Students are assigned to area hospitals or clinical technicians to assist with preventive maintenance, calibration and repair of medical equipment. The use and operation of basic test equipment is introduced along with guidelines for properly documenting procedures. Prerequisite(s): Completion of or currently enrolled in ELCTEC-134.

### **ELCTEC-138 Credits: 2**

#### **Biomedical Electronics Technician Practicum 2**

Under the supervision of hospital or clinic technicians, students enhance their skills by troubleshooting patient care and diagnostic equipment, and various medical imaging systems. Prerequisite(s): Complete ELCTEC-137 and ELCTEC-134. Completion of or currently enrolled in ELCTEC-133.

### **ELCTEC-139 Credits: 3**

#### **Advanced Biomedical Electronics**

This course is designed to help prepare students in the biomedical electronics field for taking related professional certification exams.

Equipment demonstrations, along with in-depth technical discussions, will culminate internship experiences and previous classroom instruction as it relates to biomedical equipment technician certification. Prerequisite(s): Completion of or currently enrolled in ELCTEC-133 and ELCTEC-138.

### **ELCTEC-140 Credits: 3**

#### **Microprocessors**

Students apply microprocessor and bus concepts by designing and building a parallel port, serial port, memory board and other modules that interface to an Intel-based PC system. Diagnostic software is written and oscilloscope measurements are made to test and troubleshoot interfaces built in the lab. Prerequisite(s): Complete either ELCTEC-110 or ELCTEC-115 and ELCTEC-130 or ELCTEC-117.

### **ELCTEC-141 Credits: 3**

#### **Microcontrollers**

This course covers the operation and applications of microcontrollers. Programming and interfacing of these devices and their peripherals are discussed in lecture and experienced in laboratory projects. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

### **ELCTEC-150 Credits: 3**

#### **Data Communications and Networking**

This course extends the concepts of digital and analog signals to data communication and networking applications. Conceptual topics include network topology, the principles of signaling on physical links, transmission media, data formatting, Analog-to-Digital (A-to-D) conversion, multiplexing, modulation using digital data, error control, flow control, local area networks, and Ethernet protocols. The laboratory includes experiments on A-to-D conversion, data communication signaling and error control. Prerequisite(s): Complete ELCTEC-111 and ELCTEC-120.

### **ELCTEC-172 Credits: 3**

#### **Input/Output Programming**

Students develop C programming language and Intel microprocessor language programs that monitor and control keyboards, displays, printers, serial devices and disk drives. To perform these tasks efficiently, a library of input/output functions is built that consists of ROM BIOS, operating system and student-written function calls. Prerequisite(s): Complete ELCTEC-173 and ELCTEC-174.

### **ELCTEC-173 Credits: 3**

#### **Computing With C**

This course is a survey of computer programming and operation. The C programming language is introduced, with emphasis on developing an initial understanding of the architecture common to all computers. The C language becomes a tool in subsequent computer courses. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119. Completion of or currently enrolled in MATH-115, MATH-202 or MATH-230.

### **ELCTEC-174 Credits: 3**

#### **Hardware Systems**

Students install, configure, upgrade, maintain, repair and learn the theory and operation of current computer hardware. Modular level troubleshooting techniques are introduced and developed. Computers, printers, displays and other devices are disassembled, analyzed and assembled. Technical manuals and the internet are used to obtain current computer technical documentation. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

### **ELCTEC-176 Credits: 3**

#### **Computer Networks**

Students install, configure, test and solve compatibility problems with networked workstations and servers. Print servers, TCP/IP printers, routers, switches and other network devices are installed, configured for security and tested. Web, FTP, DHCP and DNS services are added and tested on Windows and Netware servers. Fundamental user and group management tasks are performed. Various communications media and technologies are studied. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

### **ELCTEC-178 Credits: 3**

#### **Software Systems**

Students install the current Windows operating systems, then add service packs, security, critical updates, printer and network services, and other essential components. Configuration, maintenance, troubleshooting and repair tools, integrated into Windows, are examined and utilized. Command line tools are also used. The iMac OS X operating system is installed, upgraded, and maintained. The internet is used as a tool to obtain drivers and technical information. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

### **ELCTEC-179 Credits: 3**

#### **Advanced Computer Systems**

Students learn and practice powerful strategies to identify, isolate and correct failing hardware and software at the component and modular levels. Windows is installed using alternate methods including unattended installation and cloning. Students install the Linux operating system, add web and FTP services, create and manage users and groups, and write scripts. Prerequisite(s): Completion of currently enrolled in MATGEN-109. Must be admitted to one of the Electronics programs (10-605-1, 10-605-3, 10-605-6 or 10-605-7).

### **ELCTEC-186 Credits: 1**

#### **Fabrication Techniques**

This course is a practical approach to construction/repair of electronic equipment. Topics include shop safety, soldering techniques including SMDs, connectors, fasteners, ESD control, use of hand and power tools, PC board layout, schematic interpretation, and industrial/military standards. The course includes projects in which theories of topics are applied. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115.

# ELCTEC – EMS

## **ELCTEC-192** Credits: 2

### **Fluid Power**

Students are introduced to symbology, diagram logic, operation and application of various hydraulic/pneumatic devices used on an automated machine or automated process as they apply to electronic technology. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

## **ELCTEC-195** Credits: 4

### **Motor Controls**

This course covers the operational characteristics of DC and AC motors and generators, motor drives, transformers, PLC integration, and servo drives with particular emphasis on applications. A short study of renewable energy systems is included. Prerequisite(s): Complete ELCTEC-111.

## **ELCTEC-196** Credits: 3

### **PLC Systems Basic**

This course is a study of programmable controllers. The history and principles of operation and the installation, programming and maintenance of the programmable controller are covered in lecture, demonstration and laboratory exercises. Prerequisite(s): Complete ELCTEC-110 and ELCTEC-130.

## **ELCTEC-198** Credits: 3

### **PLC Systems Advanced**

This course is a study of advanced programmable controller concepts. The advanced features and instructions of the programmable controller are covered in lecture, demonstration and laboratory exercises. The student applies these concepts to interface the PLC to HMI equipment, robots, VFD motor controls and various communication protocols. Prerequisite(s): Complete ELCTEC-196.

## **ELCTEC-199** Credits: 3

### **Automated Systems**

Built upon knowledge of machinery and control fundamentals from previous courses, the student will develop a systems approach to the control of manufacturing operations and industrial process. Systems are analyzed using block diagrams with programmable controllers and robotics incorporated into the systems. Prerequisite(s): Complete ELCTEC-195 and ELCTEC-196. Completion of or currently enrolled in ELCTEC-192.

## **ELECTY – Electricity (Department 413)**

## **ELECTY-308** Credits: 2

### **Basic Skills for Electrical Wiring**

Students learn the basic skills and basic code rules used in the electrical trade. Several of these skills are developed by repetition while wiring practical lighting control circuits. Prerequisite(s): Must be admitted to the Electricity (31-413-1) or Manufacturing Maintenance (32-462-1) programs. Completion of or currently enrolled in ELECTY-392 or ELECTY-390.

## **ELECTY-310** Credits: 2

### **Cable Wiring**

Trade skills are developed through installing, connecting and controlling the common types of lighting circuits using metal-clad and nonmetallic sheathed cable. The work consists of practical shop jobs. Application of electrical code rules pertaining to concealed wiring is part of each job. Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-308.

## **ELECTY-312** Credits: 2

### **Electrical Raceway Installation**

Training is given in the use of hand benders. Mechanical benders, hydraulic benders and wire pulling techniques are covered. The bending skills are utilized by doing several typical conduit installation jobs. Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-308.

## **ELECTY-314** Credits: 1

### **Electrical Service Installation**

Practical experience is provided in wiring, installing and connecting the various types of services for lighting, heating and power. A study is made of single-phase and three-phase service requirements and code rules applicable to service installations. Prerequisite(s): Complete ELECTY-392, ELECTY-308 and ELECTY-340.

## **ELECTY-318** Credits: 5

### **Electrical Power Distribution 1A**

This course is an introduction to electrical power distribution systems. Emphasis is on the setting and securing of poles, mounting equipment on the poles, and the stringing of power lines. Students work on in-class mock-ups and on real-height, outdoor setups. Safety is emphasized. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2).

## **ELECTY-319** Credits: 4

### **Electrical Power Distribution 1B**

This course is an introduction to electrical power distribution systems. Emphasis is on the setting and securing of poles, mounting equipment on the poles, and the stringing of power lines. Students work on in-class mock-ups and on real-height, outdoor setups. Safety is emphasized. Prerequisite(s): Complete ELECTY-318.

## **ELECTY-320** Credits: 4

### **Electrical Principles and Applied Math 1**

An introduction to basic electrical principles includes a review of arithmetic and the basics of algebra, which are applied to the solution of electrical problems. The course provides an introduction to DC circuits. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2). Completion of or currently enrolled in ELECTY-319.

## **ELECTY-321** Credits: 2

### **Line Mechanic Rescue and Safety**

Instruction in pole-top rescue, safety, accident prevention and analysis, electrical shock treatment, and accident reporting. Standardized

basic first responder and CPR training are included. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2). Completion of or currently enrolled in ELECTY-319.

## **ELECTY-322** Credits: 5

### **Electrical Power Distribution 2A**

This course is a continuation of Electrical Power Distribution 1 with emphasis on modification of existing installations and live work. The student reads maps and system plans. Maintaining systems clearance and the use of chain saws are covered. Prerequisite(s): Complete ELECTY-319.

## **ELECTY-323** Credits: 4

### **Electrical Power Distribution 2B**

This course is a continuation of ELECTY-322 and features underground (URD) and street lighting systems. Prerequisite(s): Complete ELECTY-322.

## **ELECTY-324** Credits: 4

### **Electrical Principles and Applied Math 2**

This course continues and concludes the study of DC circuits. This is followed by an introduction to trigonometry with applications to AC circuits and devices. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2). Completion of or currently enrolled in ELECTY-323.

## **ELECTY-328** Credits: 2

### **Electric Motor Control Wiring**

Motor control diagrams are analyzed. Shop jobs are applied to control circuits. Motor control wiring skills are developed. Prerequisite(s): Complete ELECTY-392, ELECTY-308 and ELECTY-340.

## **ELECTY-340** Credits: 2

### **Electrical Code Fundamentals 1**

A study is made of the code rules used most frequently by practicing electricians so that students may acquire a working knowledge of those rules. Methods for locating topics in the NEC are studied. The learner performs various types of calculations. Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-392 or ELECTY-390 and ELECTY-391. Or be an electrician with a working knowledge of electricity.

## **ELECTY-341** Credits: 1

### **Electrical Code Fundamentals 2**

The learner will perform a comprehensive review of the NEC® and Wisconsin SPS 316 and will further develop skill in code interpretations and code calculations, as applied to all phases of electrical work. Prerequisite(s): Complete ELECTY-340 or other code-related experience, or be an electrician currently working in the field.

## **ELECTY-378** Credits: 1

### **Construction Blueprint Reading**

Students study the various types of drawings used in building construction. The reading and interpretation of not only the electrical plan, but also the structural, plot floor, plumbing,



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sheet metal and other plans are presented. Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-308.

### **ELECTY-382 Credits: 1** **Electrical Equipment Circuit Analysis**

The circuits, materials and installation of electrical equipment for residential heating, ventilating and air conditioning systems are studied. Various wiring diagrams are converted to practical installation layouts. Prerequisite(s): Complete ELECTY-392 or ELECTY-391.

### **ELECTY-384 Credits: 1** **Electrical Design and Estimating**

The student will draw on their knowledge from previous wiring courses to design and estimate several typical residential installations. Municipal electrical licensing requirements and applicable code articles are studied. Prerequisite(s): Complete ELECTY-310 and ELECTY-312.

### **ELECTY-386 Credits: 2** **Solid State Devices**

This course presents a comprehensive overview of solid state devices. Emphasis is on the practical applications of solid state power control. All lectures are backed up by a lab to assure understanding of concepts. Prerequisite(s): Complete ELECTY-392 or ELECTY-391.

### **ELECTY-390 Credits: 3** **Principles of Electricity 1**

This introductory course in DC/AC fundamentals offers hands-on experience in both the theoretical and practical phases of electricity. Developing skills and techniques associated with electrical circuits and test equipment will be emphasized.

### **ELECTY-391 Credits: 2** **Principles of Electricity 2**

This course is a continuation of Principles of Electricity 1. It provides a more in-depth study of DC/AC circuits with special emphasis on reactive circuits and power factor. In combination, the ELECTY-390 and ELECTY-391 course sequence equates in content to the five-credit ELECTY-392 course. Prerequisite(s): Complete ELECTY-390.

### **ELECTY-392 Credits: 5** **Principles of Electricity**

This course presents the fundamentals of direct and alternating current circuits. Various topics such as electrical instruments, electrical test procedures and electrical symbols are covered. Lectures are reinforced by lab experiments. Required math topics are presented during the course. Prerequisite(s): Must be admitted to the Electricity program (31-413-1).

### **ELECTY-394 Credits: 4** **Electrical Apparatus**

This course covers the construction and principles of operation of transformers and both DC and AC motors and generators. Lab

experiments are designed to verify operational characteristics by testing the various types of electrical apparatus. Prerequisite(s): Complete ELECTY-392 or ELECTY-391.

### **ELECTY-396 Credits: 2** **HVAC/R Electrical systems**

This is a lab course designed to provide the heating, air conditioning and refrigeration student with hands-on experience in wiring mock-ups of HVAC/R systems. Students operate, analyze, describe sequences and test these systems using various test instruments. Prerequisite(s): Completion of or currently enrolled in ELECTY-398.

### **ELECTY-397 Credits: 1** **Electrical Wiring Methods for Air Conditioning and Refrigeration**

This course is designed to familiarize the student with the wiring methods used for heating, air conditioning and refrigeration circuits. It also covers the use of wiring diagrams and the application of specifications and wiring codes.

### **ELECTY-398 Credits: 3** **Electrical Circuits/Controls for HVAC/R**

This course provides a practical knowledge of electricity, its measurement and the circuits used in the field of heating, air conditioning and refrigeration. This is a theory course that covers the functions of electronic circuits and controls and explains servicing techniques and troubleshooting procedures.

## **EMS – Emergency Medical Services (Department 531)**

### **EMS-192 Credits: 5** **EMT-Basic**

The Emergency Medical Technician course serves as a vital link in the chain of the healthcare team. The EMT can recognize the nature and seriousness of the patient condition or extent of the injuries to assess requirements for emergency medical care. The EMT will administer appropriate care based on assessment findings. The EMT will lift, move, position and otherwise handle and transport of the patient to minimize discomfort and prevent further injury. Prerequisite(s): Must be admitted to either the Fire Protection Technician program (10-503-2) or the Emergency Medical Technician program (30-531-3).

### **EMS-311 Credits: 4** **Advanced EMT**

EMT-Intermediate Technician students are Wisconsin licensed EMT-Basics seeking to upgrade their skills to the EMT Intermediate Technician level. EMT-Intermediate Technician students perform emergency patient care, basic life support and limited advanced life support in the field, transporting injured and ill patients to hospital emergency departments. They also perform care in hospital emergency departments. Prerequisite(s): Must be admitted to the Emergency Medical Technician – Advanced program (30-531-6).

### **EMS-911 Credits: 2** **EMS Fundamentals**

This course provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues and ethical issues with the intended outcome of improving the health of EMS personnel, patients and the community. The students will obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion and illness/injury prevention. Introducing students to comprehensive anatomical and medical terminology and abbreviations will foster the development of effective written and oral communications with colleagues and other healthcare professionals. Prerequisite(s): Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1).

### **EMS-912 Credits: 4** **Paramedic Medical Principles**

This course addresses the complex depth of anatomy, physiology and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology and bleeding. Prerequisite(s): Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-911.

### **EMS-913 Credits: 5** **Advanced Patient Assessment Principles**

This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients. Prerequisite(s): Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1) program. Completion of or currently enrolled in EMS-912.

### **EMS-914 Credits: 3** **Advanced Pre-Hospital Pharmacology**

This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient. Prerequisite(s): Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-913.



# EMS – ENG

## EMS-915 Credits: 2

### Paramedic Respiratory Management

This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-914.

## EMS-916 Credits: 4

### Paramedic Cardiology

This course teaches the paramedic student to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-513-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-915.

## EMS-917 Credits: 3

### Paramedic Clinical/Field 1

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and healthcare environment experiences with actual patients under the supervision of instructors or approved preceptor. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-513-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-916.

## EMS-918 Credits: 3

### Advanced Emergency Resuscitation

By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, this course prepares the paramedic student in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Complete EMS-917. Completion of or currently enrolled in EMS-916.

## EMS-919 Credits: 4

### Paramedic Medical Emergencies

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology and

pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Complete EMS-916.

## EMS-920 Credits: 3

### Paramedic Trauma

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-916 and EMS-919.

## EMS-921 Credits: 3

### Special Patient Populations

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma, are also included within this course. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-916 and EMS-920.

## EMS-922 Credits: 1

### EMS Operations

This course provides the paramedic student with the knowledge of operational roles and responsibilities to ensure patient, public and EMS personnel safety. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-921.

## EMS-923 Credits: 1

### Paramedic Capstone Assessment

This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-922.

## EMS-924 Credits: 4

### Paramedic Clinical/Field 2

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and

healthcare environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS. Prerequisite(s): Must be admitted to the Emergency Medical Technician program (31-531-1) or the Paramedic Technician program (10-531-1). Completion of or currently enrolled in EMS-919.

## ENG – English (Department 801)

## ENG-141 Credits: 3

### Intro to Mass Communications

Explores communication in media and media literacy by providing insight into the important issues that confront students as consumers and purveyors of mass media within the workforce and in society. The mass media revolution, including media technologies, the evolution of media content and platforms, including new media, the impact of media communications on business and society as a whole, media bias, and media law and ethics form the basis of the course.

## ENG-195 Credits: 3

### Written Communication

Develops writing skills which include prewriting, drafting, revising and editing. A variety of writing assignments are designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents. Prerequisite(s): ACT Reading score  $\geq 16$  and an ACT English score  $\geq 16$  or Accuplacer Reading score  $\geq 67$  and an Accuplacer Sentence score  $\geq 76$  or H.S. GPA of  $\geq 2.5$  or current GED test score of  $\geq 165$  or completion of ENG-700 with a grade of C or higher.

## ENG-196 Credits: 3

### Oral/Interpersonal Communication

Focuses on developing effective listening techniques and verbal and nonverbal communication skills through oral presentation, group activity and other projects. The study of self, conflict and cultural contexts will be explored, as well as their impact on communication. Prerequisite(s): Complete ENG-195, ENGE-195, ENGCR-195, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

## ENG-197 Credits: 3

### Technical Reporting

Prepare and present written, oral and visual communication products, including instructions, proposals, informal and formal reports. Produce clear, usable communication by incorporating information design principles, arranging content to satisfy diverse audience needs, and presenting visuals for various contexts. Designed

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as an advanced course to develop collaborative communication practices, information literacy skills, and ethically responsible professional communication strategies. Prerequisite(s): Complete ENG-151, ENG-195, ENGE-195, ENGCR-195, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-201** **Credits: 3**

### English 1

Introduces students to the basic principles of college-level composition, research, critical reading and critical thinking with an emphasis on academic writing conventions. In addition to examining the content and structure of academic essays, instruction in sentence structure and usage is provided as needed. Written work for this course consists of essays that are expository and analytical in nature. Major attention also is given to the preparation and writing of a research essay through writing assignments which emphasize finding, evaluating and incorporating appropriate secondary sources into students' written work. Prerequisite(s): ((Accuplacer Reading score  $\geq 77$  or an ACT Reading score  $\geq 18$ ) and (an Accuplacer Sentence score  $\geq 89$  or an ACT English score  $\geq 18$ )) or ENG-152, ENG-200 or ENG-700 with a grade of C or higher.

**ENG-202** **Credits: 3**

### English 2

The intent is to give students training beyond ENG-201 in advanced composition, research and critical thinking by reading a selection of literary genres chosen by the instructor. Students will increase their understanding and appreciation of the genres by analyzing and writing about prose fiction, drama and poetry. Writing assignments and essays will consist of literary analysis, persuasion, and, when appropriate, the use of secondary sources. Major attention also is given to the preparation and writing of a research essay through writing assignments that emphasize finding, evaluating and incorporating appropriate secondary sources into students' written work. Prerequisite(s): Complete ENG-151 or ENG-195 and ENG-152 or ENG-197 with a grade of C or higher, or ENG-201 with a grade of C or higher.

**ENG-207** **Credits: 3**

### Intro to Creative Writing

The course will introduce students to the theory and practice of creative writing. Students will develop their reading and writing skills by working in a variety of literary genres and by participating in small-group writing workshops. Prerequisite(s): Complete ENG-151 or ENG-195, ENGE-195, ENG-201 or ENGE-201 with a grade of C or higher.

**ENG-208** **Credits: 3**

### Technical Communications

This course introduces techniques and practices for writing, editing and developing technical communications. Students generate a number of documents, including but not limited to technical reports, proposals and instructions using a variety of formats, styles, strategies and visuals. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-209** **Credits: 3**

### Creative Writing: Fiction

This course will continue the student's development of fiction writing. Students will read professional examples of fiction and demonstrate techniques and practices of fiction writing. Prerequisite(s): Complete ENG-207 with a grade of C or higher.

**ENG-210** **Credits: 3**

### Creative Writing: Poetry

This course will continue the student's development of poetry writing. Students will read professional examples of poetry and demonstrate techniques and practices of writing poetry. Prerequisite(s): Complete ENG-207 with a grade of C or higher.

**ENG-213** **Credits: 3**

### American Literature to 1865

This course is an introduction to American writing from the age of exploration to the Civil War. Students will examine early literary sources and consider how literature reflects and influences the lives of those who have lived in what is now the United States. Approaches vary with instructor; materials studied are likely to include early Native American oral traditions and works by authors such as Adams, Bradstreet, Child, Dickinson, Douglass, Emerson, Franklin, Hawthorne, Jacobs, Melville, Murray, Poe, Rowlandson, Stowe, Thoreau, Wheatley and Whitman. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-214** **Credits: 3**

### American Literature Since 1865

This course is a survey of the American literary tradition from post-Civil War writers to the present. Students will read a range of major American authors in order to trace the development, influence and practice of American literature. Authors may include Alexie, Baldwin, Cather, Chopin, Ellison, Erdrich, Faulkner, Frost, Gilman, Hemingway, Tan, Updike and Walker. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-215** **Credits: 3**

### Contemporary Literature

Students study diverse contemporary authors and their work, which includes poetry, short stories, the novel, drama, and nonfiction, both creative nonfiction and literary criticism. Historical, cultural, social and political contexts of contemporary literature are considered. The main objectives of the course are to introduce techniques and practices for interpreting, appreciating, discussing, writing and researching about contemporary literature and to help students improve existing skills for composing and revising written work. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-218** **Credits: 3**

### African American Literature 1

African American literature written during the period from 1760 to 1940 is studied, including slave narratives, poetry, short stories, speeches and essays. Students will consider the literature within a sociohistorical context, including such topics as the background of the African American Renaissance, the Talented Tenth, double consciousness, the rise of the Black Intelligentsia and the Harlem school. This course will prepare students for critical thinking and academic writing about literature. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-219** **Credits: 3**

### African American Literature 2

This course covers literature written after the Harlem Renaissance to the present. Students will consider the literature within a sociohistorical context and will discuss such topics as the Wright school, protest writers, raceless novels, novels and plays of African American life, the Black arts movement, and existentialism in African American letters. This course will prepare students for critical thinking and academic writing about literature. Students do not need to have completed ENG-218 in order to enroll. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-220** **Credits: 3**

### Native American Literature

Students examine literary work by contemporary and traditional Native American writers and oral tradition storytellers. Wisconsin Indian history, culture, tribal sovereignty and treaty rights will be covered within the context of literary analysis and critique. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

**ENG-222**

### Images of Women in Literature

The course provides examples of images of women in literature as a creative reflection of, description of, and reaction to their social, economic, familial, legal, and personal status both in the past and in the present. Students in the course will read and analyze literature to better understand the reasons and motivations for the portrayal of women in literary works that reflect cultural and historical values. Through literary analysis students will strengthen their understanding of how women's roles, and the perception of these roles, have or have not changed. Students in the course will demonstrate appreciation for the literature and reflect on the perceptions of women in literature and society. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

# ENG – EYI

## ENG-223 Credits: 3 African American Literature by and About Black Women

This course provides a reflection of women's social, economic and legal status both past and present. The course analyzes and evaluates literature written by and about Black women with the goal of focusing our critical energy on recovering "her-story" as well as attaining keener insights into the important role of these women in both historical and contemporary life. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

## ENG-224 Credits: 3 Introduction to U.S. Latino Literature

This course examines contemporary fiction, creative nonfiction, drama and poetry written by authors of Latin American descent. Students will learn about the contemporary sociocultural concerns experienced by the U.S. Latino population. Major attention also is given to literary analysis and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

## ENG-235 Credits: 3 Utopian and Science Fiction Literature

A survey of selected utopian and science fiction literature that examines the various trends, themes and subgenres in speculative fiction. The course concentrates on the use of these literary genres as a vehicle for social criticism and exploring contemporary concerns. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

## ENG-240 Credits: 3 Introduction to Modern Cinema

An introductory course in contemporary films. Students view and discuss how films communicate. The course also considers the major theories of film. Out-of-class assignments include viewing and critiquing films. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with a grade of C or higher.

## ENG-340 Credits: 2 Workplace Communication

Workplace Communication focuses on listening, speaking, reading and writing in an employment-related context. In addition, participants in this course will focus on career preparation and develop the interpersonal skills and workplace habits necessary to successfully transition from their role as a student in a vocational training program to an active job seeker.

## ENTREP – Entrepreneurship (Department 145)

### ENTREP-101 Credits: 3 Introduction to Entrepreneurship

This course takes the student from idea creation to development to monetization. Students will understand market forces, accentuate internal strengths and evaluate market potential. Sections on building the management team, constructing operations and financing the venture will be studied.

### ENTREP-102 Credits: 3 New Product Development

This course takes the idea for the product or service, researches the size of the market, and develops a plan to address the market. Understanding how the consumer values the product or service, and how to increase that usage or awareness, will be stressed. Sections covered will be estimating the physical size or value of the market, pricing, creating a cohesive marketing plan, and building a distribution channel.

### ENTREP-103 Credits: 3 Strategic Business Communication

This course develops the integrated marketing message via electronic and traditional methods. Once a product or service is designed, the next step is to build awareness through consistent means, mixing techniques to adapt and reach intended markets. Students will use a variety of different media to understand the potential of the tools. Students will explore the positioning of various products to utilize multiple channels to get the intended message to the proper segments. Students will create a media supportive strategy for the business by utilizing and exploring current trends in marketing.

### ENTREP-104 Credits: 3 Business Plan

This course covers the writing in detail of the aspects of the business. Starting with the executive summary describing the venture, to the building of the management team, explaining the operations, targeting the market goals, and to projecting the detailed financials, a comprehensive document will be prepared. Accuracy and consistency of all sections of the plan will be expected.

### ENTREP-105 Credits: 3 Projects in Entrepreneurship

This course specifically develops the skills needed to present the business plan with slides, charts and graphics. Public speaking and team building will be used to enhance the presentation. Networking events will create a level of professionalism.

## ENVHEL – Environmental Health (Department 506)

### ENVHEL-101 Credits: 3 Intro to Environmental Health/Water Quality

This is an introductory course to the field of environmental health and water quality. This study will include air, water, soil and food quality along with communicable and zoonotic diseases.

The many career paths of the environmental practitioner include water quality, food safety, air quality, global environmental health, sustainability, energy conservation and related fields.

### ENVHEL-102 Credits: 4 Environmental Biology

This course introduces the student to the basic principles of ecology pertinent to the field of environmental health with emphasis on aquatic ecosystems (ponds, lakes and streams). Various aquatic organisms are studied as indicators of environmental quality or degradation.

### ENVHEL-104 Credits: 4 Industrial Hygiene Technology

This course deals with the anticipation, recognition, evaluation and control of environmental factors in the workplace that affect the health, comfort, safety and well-being of workers and the community. Types of hazards include gases, vapors, particulates and fumes. Occupational diseases and basic toxicology will be discussed as applicable. Prerequisite(s): Complete ENVHEL-101, ENVHEL-109 and MATH-107 or any 200-level MATH course.

### ENVHEL-105 Credits: 4 Fundamentals of Hazardous Materials Control

The properties of materials commonly used in the workplace that are potentially hazardous to workers and the techniques of detection of those materials, along with proper methods of transporting, handling and disposal of those materials in the workplace, are studied. Course includes the preparation and sitting for the WI DATCP Structural Pest Control 7.1 certification exam. Successful completion of required coursework and hours will result in the 8-HR OSHA Certification per 29 CFR 1910.120. Prerequisite(s): Complete ENVHEL-104.

### ENVHEL-109 Credits: 4 Applied Environmental Chemistry

The applied approach to environmental chemistry provides students with a review of basic principles and laboratory techniques. The specialized focus includes environmentally related areas of water and wastewater, toxics, air, soil, and hazardous materials.

### ENVHEL-111 Credits: 4 Applied Water Chemistry and Analysis

A student in this course will perform sampling, measurement and interpretation both in the field and laboratory settings for the analysis of water resources. Water is treated and used in our daily lives for drinking water, municipal reclamation, manufacturing, industry, food, beverage, medical use and survival of aquatic ecosystems. The course will provide students with a better understanding of water quality monitoring, water treatment and analyses through real-world practical quantitative water chemistry applications. This course will include chemical safety, approved methodology, instrumentation use, regulations, quality assurance and quality control concerns. Prerequisite(s): Complete ENVHEL-101, ENVHEL-102, ENVHEL-109 and MATH-107 or any 200-level MATH course.



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### **ENVHEL-115** Credits: 4 **Air Quality**

This study of the effects of air pollution includes the types of air pollution, their sources, and their prevention and control. Various air pollution sampling techniques and air analysis methods are performed by the student. Prerequisite(s): Complete ENVHEL-101, ENVHEL-102 and ENVHEL-109.

### **ENVHEL-119** Credits: 3 **Food and Dairy Safety**

This course covers the application of sanitation principles necessary for food and milk protection. It includes preservation, distribution, and serving of food and milk. Also covered are the microbiology of foodborne diseases, food code compliance, mild pasteurization and testing. Prerequisite(s): Complete ENVHEL-101 and ENVHEL-173.

### **ENVHEL-127** Credits: 3 **Environmental Field Projects**

The goals of this course are to give participants advanced training in field techniques important to environmental health and water quality assessment and research. This course emphasizes field applications through lectures and field practices. Students will deal with actual environmental issues and complete projects associated with job-readiness, professionalism on-the-job, oral and written communication skills. Prerequisite(s): Complete ENVHEL-111 and ENVHEL-115.

### **ENVHEL-128** Credits: 1 **Environmental Health Internship**

Students will gain valuable work experience in the environmental health and water quality technology field. Students will utilize the knowledge, skills and techniques learned in the program at an approved work station under the guidance of the program instructor and employer. Prerequisite(s): Complete ENVHEL-111, ENVHEL-115 and INTRN-796.

### **ENVHEL-142** Credits: 3 **Principles of Water Resources**

This course is the study of water and its uses which includes the history, types of surface water and groundwater sources, water quality, federal, state and local legislation, water conservation, and emerging water issues affecting human health and the environment.

### **ENVHEL-143** Credits: 3 **Environmental Management and Communications**

Instruction is provided to develop and/or enhance people skills essential to an environmental manager. Students will observe and apply a variety of environmental management strategies that includes NEPA, environmental impact assessments, sustainability, environmental policy, ISO 14001, and the necessary communications skills for effective and diversified management of principal determinants of environmental health. Prerequisite(s): Complete ENVHEL-111 and ENVHEL-115.

### **ENVHEL-145** Credits: 3 **Water/Wastewater Operations – Municipal**

Operational procedures and facilities used in municipal water supply treatment and wastewater/water reclamation treatment are studied. Methods of establishing and maintaining hydraulic flow and techniques for chemical treatment, nutrient removal and an overview of applicable regulations are integrated into the course. Field trips to local facilities are during class time in order to demonstrate various procedures and treatment process methods. Laboratory work may include demonstrations or hands-on testing.

### **ENVHEL-146** Credits: 2 **Water/Wastewater Operations – Industrial**

The process basics and operational procedures for treating industrial wastewater are studied. Emphasis is placed on proper operation and maintenance, chemical safety, sampling, remedial measures, waste minimization, recordkeeping, and typical wastewater treatment process problems encountered in both the industrial and the food and beverage industries. Prerequisite(s): Complete ENVHEL-145.

### **ENVHEL-147** Credits: 3 **Industrial Wastewater Operations – Treatment**

The process basics and operational procedures for treating industrial wastewater are studied. Emphasis is placed on proper operation and maintenance, chemical safety, sampling, remedial measures, waste minimization, recordkeeping, and typical wastewater treatment process problems encountered in both the industrial and the food and beverage industries. This course includes field trips. Prerequisite(s): Complete ENVHEL-145.

### **ENVHEL-173** Credits: 3 **Environmental Bacteriology**

Principles dealing with microbiological organisms, with an emphasis on bacteriological applications to the environmental health field, are covered in this course. Students conduct laboratory procedures utilized in the field according to standard methods. Environmental parameters include water, milk, food and inanimate surfaces. Interpretations of laboratory results are based on applicable standards.

## **EYI – Enhanced Yoga Instructor (Department 546)**

### **EYI-101** Credits: 1 **History and Foundation of Yoga**

Basic overview of the history of yoga and the philosophies leading to the modern-day yoga practice, with emphasis on the yoga sutras. The fundamentals of both Sanskrit and medical terminology will be covered with focus on prefixes, suffixes and root words. Symptomatic and therapeutic terms relating to the musculoskeletal system will be emphasized.

### **EYI-110** Credits: 3 **Functional Movement**

Examines anatomy and kinesiology with emphasis on the musculoskeletal system.

Movements specific to yoga will be covered with application of knowledge useful for all movement modalities. Students will be able to apply knowledge to assess and assist future students/clients in functional alignment for injury prevention.

### **EYI-120** Credits: 2 **Asana, Sequencing and Structure**

Study of the archetypes of poses (asana), looking at anatomical function within each posture. Sanskrit will be reviewed for understanding of pose names. The fundamentals of the how and why of sequencing will be covered for each of the basic style of class: flow, hatha and yin. Students will prove their understanding of how to sequence a class by creating and teaching a flow, hatha and yin class.

### **EYI-130** Credits: 2 **Mindfulness and Meditation**

Five basic forms of meditation will be taught; students will then teach each form within a practical. Students will experience an eight-week mindfulness practice for application in their own lives in conjunction with learning how to lead students/clients in mindfulness practices.

### **EYI-140** Credits: 1 **Business Ethics in Yoga**

Students will learn the fundamentals of how to register with the Yoga Alliance and market themselves as a teacher. They will also learn how to conduct themselves within the scope of practice and within the ethical guidelines of the Yoga Alliance and healthcare professionals.

### **EYI-210** Credits: 2 **Energetics and Subtle Body**

Overview of the energetics of the body (chakras, koshas and vayus). Pranayama (breath) practices and mudras will also be covered.

### **EYI-220** Credits: 3 **Anatomical Variations**

In-depth look at the skeletal variances within human anatomy and how that will affect students within the asana pose. Students will learn how to work with different disease processes, injuries and special need populations, growing skills for interdisciplinary collaboration.

### **EYI-230** Credits: 2 **Teaching Methodology**

This course will enable students to utilize a basic understanding of principle and methods of teaching to best serve their student base. The main focus will be on adult learners, but some basic information will be covered for teaching children.

### **EYI-240** Credits: 1 **Adaptive Yoga**

This course will cover the adaptation of the yoga practices (asana, mudra and pranayama) to people with disabilities. Chronic illness as well as common injuries will also be addressed. Prerequisite(s): Complete EYI-311.



# FIN – FLANG

## FIN – Banking and Finance (Department 114)

**FIN-110** Credits: 3

### Principles of Banking

An entry-level course designed to provide students who are new to banking a general understanding of the industry. Principles of Banking introduces fundamental banking concepts and principles, the basics of how banks operate as service providers and businesses, their obligation to operate in a safe and sound manner and manage risks, and the responsibilities of bank employees in a customer-focused financial services environment.

**FIN-120** Credits: 3

### Introduction to Money, Banking and Finance

An introduction to the essential elements of money, banking and financial markets while emphasizing the relevance of each in the economy. Topics include financial markets and instruments, financial institutions, central banking, monetary policy and the Federal Reserve System, and business cycles. Prerequisite(s): Complete FIN-110 or ACCTG-111 and ECON-195 or any 200-level ECON course.

**FIN-122** Credits: 3

### Investment Principles

In this course, students are presented with the information, tools and guidance needed to make educated investing decisions. The investment simulation project provides hands-on experience stock trading and structuring a portfolio. Prerequisite(s): Complete ACCTG-110 or ACCTG-111.

**FIN-170** Credits: 3

### Credit Management

This course provides the knowledge and tools to establish, manage, analyze, and control both consumer and business credit. Topics include the credit process, credit management policies and procedures, financial statement analysis, and regulation of consumer credit.

**FIN-180** Credits: 3

### Corporate Financial Management

Corporate Financial Management is a capstone course for the Banking and Financial Services program. Emphasis is placed on interpreting and analyzing financial statements and financing decisions. Course takes an analytical approach around the balance sheet and the impact business decisions have on it. Prerequisite(s): Complete ACCTG-113 and ACCTG-122.

## FIRE – Fire Protection Technician (Department 503)

**FIRE-114** Credits: 3

### Employability Skills

Employability Skills is a course designed to fine tune the student's skills, knowledge and abilities, and apply them to the application or promotion

process within the Fire Service. Prerequisite(s): Complete FIRE-142, FIRE-143, FIRE-153, FIRE-191, FIRE-192 and FIRE-193.

**FIRE-142** Credits: 4

### Fire Fighting Principles

Describes basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter Level 1 certification with the state of Wisconsin. Prerequisite(s): Complete FIRE-143, FIRE-191, FIRE-192 and FIRE-193. Completion of or currently enrolled in FIRE-153.

**FIRE-143** Credits: 3

### Building Construction for Fire Protection

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations and operating at emergencies.

**FIRE-144** Credits: 2

### Advanced Firefighting Principles

This course builds on Fire Fighter Level 1 skills with multiple practical sessions including structural firefighting, vehicle extrication, natural gas fire emergencies, firefighting foam and more. Students will learn communications, incident reporting and the Incident Management System. Students will be put in command roles and coordinate on-scene operations for multiple fire and rescue companies during live fire attack sessions. This course meets all requirements of Fire Fighter Level II State of Wisconsin certification. Prerequisite(s): Complete FIRE-142 and FIRE-153.

**FIRE-151** Credits: 4

### Fire Prevention

This course provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, plans review, fire inspections, fire and life safety education, and fire investigation. Prerequisite(s): Complete FIRE-143, FIRE-191, FIRE-192 and FIRE-193.

**FIRE-153** Credits: 1

### Hazmat Awareness and Operations

Examines characteristics relating to hazardous materials including problems of recognition and mitigation. Prepares students to Hazardous Materials Technician Level.

**FIRE-154** Credits: 2

### Hazmat Chemistry

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity and health hazards encountered by emergency services.

**FIRE-156** Credits: 3

### Strategies, Tactics and Incident Management

Provides an in-depth analysis of the principles of emergency response through utilization

of an incident management system. Prepares students to pursue current national ICS training requirements. Prerequisite(s): Must be admitted to the Fire Protection Technician program (10-503-2).

**FIRE-157** Credits: 3

### Fire Investigation

Provides students with the fundamentals and technical knowledge needed for proper fire scene investigations. Many topics will be covered including arson detection, conducting a fire investigation, determining whether the fire is accidental or incendiary, fire cause, and origin. Prerequisite(s): Complete FIRE-142, FIRE-143, FIRE-153, FIRE-191, FIRE-192 and FIRE-193

**FIRE-191** Credits: 2

### Principles of Emergency Services

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics and leadership from the perspective of the company officer.

**FIRE-192** Credits: 3

### Principles of Emergency Services Safety and Survival

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

**FIRE-193** Credits: 3

### Fire Protection Systems

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

**FIRE-194** Credits: 3

### Fire Protection Hydraulics

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Prerequisite(s): Complete FIRE-193.

**FIRE-195** Credits: 3

### Fire Behavior and Combustion

This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

## FLANG – Foreign Language (Department 802)

**FLANG-104** Credits: 1

### Spanish for Dental Staff

Upon completion, participants will be able to use Spanish to register patients, obtain medical history, engage in office etiquette, explain routine procedures, give directions to patients

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during procedures, explain anesthesia, explain billing procedures, instruct patients concerning medications, and instruct patients concerning postoperative problems.

### **FLANG-105** **Credits: 1** **Spanish for Healthcare**

Upon completion, participants will be able to use Spanish to obtain basic information and patient history, obtain vital signs, perform physical assessments, perform routine procedures, prepare patients for surgery or other procedures, administer medications and injections, feed and bathe patients, assist and interact with patients' families, honor patients' requests, assist in emergency situations, identify Hispanic culture traits relating to medical care, reduce Hispanics' fear of hospital settings, and understand Hispanic health belief systems.

### **FLANG-107** **Credits: 1** **Survival Spanish – Work and Travel America**

This introductory approach to conversation presents everyday situations encountered in work and travel situations where Spanish is spoken. This course provides students with the basic vocabulary and cultural understanding needed when communicating in Spanish.

### **FLANG-109** **Credits: 1** **Spanish for Business Professionals**

Upon completion of the program, participants will be able to use Spanish to greet people, engage in etiquette and social niceties, introduce oneself and others, count to 2,000, compliment people, order food and drink, give directions to a cab driver, register in a hotel, make simple purchases, request emergency assistance, and make and receive telephone calls.

### **FLANG-111** **Credits: 1** **Spanish for Restaurants**

Upon completion, participants will be able to use Spanish to greet and depart; compliment people; engage in etiquette and social niceties; use holiday greetings; direct kitchen staff, servers and busing staff; and communicate general rules and safety issues.

### **FLANG-117** **Credits: 3** **Conversational Spanish for Service Occupations**

This introductory approach to conversation presents everyday situations encountered on job sites. The course provides students with the basic vocabulary and cultural understanding needed for working with Spanish-speakers in targeted occupations both at home and abroad.

### **FLANG-119** **Credits: 1** **Survival Spanish for Educators**

This course is designed to provide functional Spanish language skills for school personnel who have contact with Spanish-speaking students and visitors. Learn essential vocabulary and phrases for everyday interactions in school settings. Gain confidence in welcoming students, giving instructions and addressing their needs. Deepen your cultural understanding of Spanish-speaking

peoples. Strengthen connections and foster inclusivity within your school community.

### **FLANG-123** **Credits: 3** **Intermediate Spanish**

This course is designed to help students build language proficiency and gain cultural awareness by discussing in the target language a variety of practical topics related to the Spanish-speaking community. One hour of language lab attendance per week is required.

### **FLANG-200** **Credits: 2** **Spanish 1A**

For beginning students who feel they need more time to complete Spanish 1. This course is the first half of a curriculum that divides Spanish 1 into two semesters. It moves gradually and includes an emphasis on how to learn a foreign language. The course stresses the development of basic communicative skills through practice in listening, speaking, reading and writing. Vocabulary and grammar are emphasized. A study of values and customs provides an increased awareness of the cultures of the Spanish-speaking world. The course is college transferable as Spanish 1 only upon completion of both semesters. Prerequisite(s): This class is a beginning level class: "If you feel this class would be too easy for you, contact worldlanguages@matc.edu prior to registration for a quick and free placement test." Earning a B or better in a higher-level course will earn students 2-14 free FLANG credits for the classes skipped, thus saving students time and money.

### **FLANG-201** **Credits: 2** **Spanish 1B**

A continuation of Spanish 1, first semester. This slower-paced course stresses the development of basic communicative skills through practice in listening, speaking, reading and writing. Vocabulary and grammar are emphasized. A study of values and customs provides an increased awareness of the culture of the Spanish-speaking world. Upon completion of this course and FLANG-209, students have the equivalent of Spanish 1. Prerequisite(s): Complete FLANG-200 or satisfactory MATC placement test score.

### **FLANG-202** **Credits: 4** **Spanish 1**

This Spanish course is designed to give you a strong base in the language and an increased awareness of the cultural perspectives offered. Part of learning Spanish is developing perspectives offered through the many Spanish-speaking cultures. The text will be used as a resource to help guide us; however, we will be expanding beyond the text when necessary. Prerequisite(s): This class is a beginning level class: "If you feel this class would be too easy for you, contact worldlanguages@matc.edu prior to registration for a quick and free placement test." Earning a B or better in a higher-level course will earn students 2-14 free FLANG credits for the classes skipped, thus saving students time and money.

### **FLANG-205** **Credits: 4** **Spanish 2**

In this continuation of FLANG-201 or FLANG-202, students develop additional communicative skills in real-life situations and gain a better understanding of the Spanish-speaking cultures of the world in relation to their own. One hour of language lab attendance per week is required. Prerequisite(s): Complete FLANG-201, FLANG-202 or satisfactory MATC placement test scores.

### **FLANG-213** **Credits: 3** **Spanish 3**

This course is designed to help students build language proficiency and gain cultural awareness by discussing in the target language a variety of cultural topics and pertinent current issues. Students will refine grammar skills to improve conversational abilities. Prerequisite(s): Complete FLANG-205 or satisfactory MATC placement test score.

### **FLANG-214** **Credits: 3** **Spanish 4**

This course is continuation of FLANG-213. Students will continue to study cultural topics. Students will increase vocabulary, refine communicative skills and develop cultural insights. One hour of language lab attendance per week is required. Prerequisite(s): Complete FLANG-213 or satisfactory MATC placement test score.

### **FLANG-218** **Credits: 3** **Spanish 5: Conversation, Grammar and Current Topics**

This course focuses on developing accuracy and proficiency in spoken communication. Building on their experience in Spanish 4, students study the Spanish language in greater depth and breadth. Students continue to refine their language abilities through the study of Hispanic culture. Current topics, cultural norms and a "tour" of the Hispanic world will offer students the opportunity to study the target culture while using the target language. Prerequisite(s): Complete FLANG-214 or satisfactory MATC placement test score.

### **FLANG-221** **Credits: 4** **French 1**

Est-ce que tu aimes le pain au chocolat? Parlez-vous espagnol? In French 1, you will learn what these questions mean, how to formulate and answer them, and build a foundation in listening, speaking, reading and writing in French. You will explore and gain awareness of multiple social francophone identities and cultures of the French-speaking world to acquire basic communicative skills and for metalinguistic development of your first language. This proficiency-oriented language course is designed for students who are studying French for the first time and provides gradual immersion, interpreting and creating meaning through readings to raise language awareness.

# FLANG – FUNERL

## **FLANG-222** Credits: 4 **French 2**

Voudriez-vous voir Paris, manger le couscous marocain ou sentir le jasmin tunisien? La grande cuisine et la haute couture viennent-elles de la France? In French 2, you will learn what these questions mean, how to answer or expand on them in French, and much more. This course is designed for students who successfully completed French 1 and wish to build their continued foundation in language and culture for the strengthening of basic communicative skills and in preparation for intermediate skills or travel. Learning French is key to careers in global organizations, research and businesses that concern themselves with health, commerce, philanthropy, art, dance, science and beyond. Prerequisite(s): Complete FLANG-221 or satisfactory placement test scores.

## **FLANG-228** Credits: 3 **Spanish for Spanish Speakers**

Fosters further linguistic development through the emphasis on contemporary issues facing Latinos. This stresses the improvement of writing and speaking professional Spanish as well as gaining a deeper understanding of the broader Spanish-speaking world. Upon successful completion, students possess an intermediate-mid level of written and spoken Spanish. Prerequisite(s): Complete FLANG-213 or satisfactory placement test score.

## **FLANG-262** Credits: 4 **Arabic I**

This Arabic course is designed to give you a strong base in the language and an increased awareness of the cultural perspectives offered. Part of learning Arabic is developing perspectives offered through the many Arabic-speaking cultures. The text will be used as a resource to help guide us; however, we will be expanding beyond the text when necessary.

## **FLANG-263** Credits: 4 **Arabic 2**

In this continuation of FLANG-262, students develop additional communicative skills in real-life situations and gain a better understanding of the Arabic-speaking cultures of the world in relation to their own. One hour of language lab attendance per week is required. Prerequisite(s): Complete FLANG-262 or consent of instructor.

## **FOTE – Foundations of Teacher Education (Department 522)**

### **FOTE-102** Credits: 3 **EDU: Techniques in Reading**

The purpose of this course is to provide students with a solid foundation for effective literacy instruction in K-9 grade classrooms. The course will focus on the major five elements of reading: phonemic awareness, phonics, vocabulary, fluency and comprehension. Phonological awareness will also be addressed. This course

will review research-based teaching strategies, instructional materials, and methods and assessments for effective and inclusive literacy instruction.

### **FOTE-103** Credits: 3 **EDU: Intro to Ed Practices**

Students analyze preK-12 education in the United States, determine roles and responsibilities of school personnel, and explore current trends and best practices. Students identify how students learn and the foundations of lesson planning. Students analyze assessment strategies, classroom management and techniques for supporting learners.

### **FOTE-104** Credits: 3 **EDU: Technology in Education**

The focus of this course is for students to teach and learn with information and technology rather than about information and technology. The Wisconsin Department of Public Education (DPI) states that “Information and Technology Literacy is the ability of a teacher, working independently or with others, to use tools, resources, processes, and systems responsibly to access and evaluate information in any medium, and to use that information to solve problems, communicate clearly, make informed decisions, and construct new knowledge, products, or systems.” Students will analyze all aspects of information and technology literacy as well as begin their digital professional teaching portfolio.

### **FOTE-105** Credits: 3 **Behavior Management**

Students analyze the behavior of students in educational settings. Emphasis will be given to examining the influences on behavior and creating proactive learning environments through behavioral interventions and support. Students will evaluate strategies for creating a safe and supportive classroom environment.

### **FOTE-106** Credits: 3 **EDU: Child and Adolescent Development**

Students will analyze the physical, cognitive and social-emotional development of children with an emphasis on school-age children and adolescents. Students will examine environmental factors that influence child development. Developmental theories will be summarized and related to current teaching practices.

### **FOTE-107** Credits: 3 **EDU: Overview of Special Education**

Students examine a historical overview of special education and special education law, including special education disability categories as defined by the Individuals with Disabilities Education Act (IDEA). Students explore state and federal qualification special education criteria and societal responses to students with disabilities. Students examine the impact of a student with disabilities on family dynamics and the role school personnel play in supporting students with disabilities.

## **FOTE-112** Credits: 3 **EDU: Equity in Education**

Students analyze personal culture, explore cultural constructs, evaluate cultural bias in educational materials and analyze strategies to support English learners. Students examine diversity in the classroom and develop techniques for supporting equity in the learning environment. In addition, students collaborate to identify service needs in the community and demonstrate professional collaboration skills through participating in a service-learning project.

## **FOTE-114** Credits: 3 **EDU: Techniques in Language Arts**

Students will be introduced to the science and art of teaching language arts. Evidence-based approaches and assessments will be examined and practiced. Students will create a literature file through the exploration of a variety of children’s/young adult literature.

## **FOTE-118** Credits: 3 **EDU: Techniques in Math**

Students learn key terminology and research-based strategies to support learners in math domains: numbers, base ten operations, algebraic thinking, geometry, probability/statistics, and measurement and data. Current practice, including manipulatives, problem-solving and assessment, will be covered within the framework of state and national standards.

## **FOTE-119** Credits: 3 **EDU: Techniques in Social Studies**

Students analyze current content in social studies education as recommended by the National Council for the Social Studies and Wisconsin DPI. Students design learning opportunities for the five content areas of social studies — geography, history, behavioral sciences (culture and society), political science (civics and government), and economics — that incorporate the social studies inquiry practices and processes. Students receive training on the history, culture and tribal sovereignty of Wisconsin’s 11 federally recognized American Indian nations and tribal communities. (Act 31) and the Holocaust and other genocides (Act 30) to meet Wisconsin teacher standards and teaching requirements.

## **FOTE-120** Credits: 3 **EDU: Techniques in Science**

Students are introduced to the content and processes of teaching science. Students explore science processes, strategies, procedures, assessment options and factors affecting science learning. Students practice strategies for assisting with group and individual activities in science. This course provides a foundation in the concepts and models of hands-on, student-centered science and its assessment as described in WI DPI Science Standards and Next Generation Science Standards (NGSS).



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**FOTE-124** Credits: 3

### **EDU: Supporting Students With Disabilities**

Students identify research-based interventions for learners in categories defined by the Individuals with Disabilities Education Act (IDEA). Students interpret Individualized Educational Programs and examine special education-related services available for learners. Students collect data to document student behavior and academic performance and recommend program adaptations and accommodations for students with disabilities while applying the concepts of least restrictive environment and inclusion.

**FOTE-129** Credits: 3

### **EDU: Practicum 1**

Students apply the skills learned in previous program courses in a school setting while under the supervision of a Department of Public Instruction certified teacher. Students support learners while demonstrating professionalism. Students begin the reflective process.

**FOTE-131** Credits: 3

### **EDU: Practicum 2**

Students apply the skills learned in previous program courses in a school setting while under the supervision of a Department of Public Instruction certified teacher. Students support learners while demonstrating professionalism. Students apply job search skills.

## **FSTEC – Food Science Technician (Department 623)**

**FSTEC-101** Credits: 4

### **Food Quality Management**

In this course, hazard analysis and risk-based preventative controls are explored at all stages of food production. The Food Safety Modernization Act (FSMA) is examined for manufacturing, packaging and distribution. FSMA, including preparation, planning, and system design, and materials and tools useful to successful implementation are presented. Results in Certified Food Safety Manager Certification.

**FSTEC-103** Credits: 2

### **Manufacturing Processes and Lab Science**

In this course, the principles of food processing are examined. The stages and unit operations for manufacturing different categories of food products are analyzed. The application of essential food processing principles is explored, including composition analysis in the laboratory and food product labeling.

**FSTEC-190** Credits: 3

### **Food Science**

In this course, students examine types of processed foods available to consumers and the processes and scientific principles utilized to make those foods. The food science and technology industry will be studied to understand food processing, food safety, advertising quality and marketing of processed foods. The relationship between food, additives,

manufacturing and health will be examined. The course also provides a brief introduction to the different career opportunities within the food industry.

**FSTEC-191** Credits: 3

### **Food Science Nutrition**

In this course, students examine human nutrition through the lens of a food scientist. It is designed for students entering the food and/or beverage industry. The course provides practical, scientifically based nutritional information and allows students to answer questions related to human nutrition. It provides a basic introduction to digestion, metabolism, macronutrients and micronutrients, and proper nutrition throughout various life stages. The course also relates human nutrition to food production.

## **FUNERL – Funeral Service (Department 528)**

**FUNERL-104** Credits: 2

### **Funeral Service Field Experience I**

Students currently enrolled in Semester 1 of the Funeral Service program are required to take part in the “day-to-day” funeral activities at a participating funeral home establishment for a total of eight hours per week to gain hands-on experience in all facets of funeral directing. Required tasks include embalming under the supervision of a licensed funeral director, cosmetizing, observing arrangement conferences, assisting with conducting services and any other related tasks in funeral service. Report submissions will be required of students throughout the term of the class documenting their tasks and progress. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-105** Credits: 2

### **Funeral Service Field Experience II**

Students currently enrolled in Semester 2 of the Funeral Service program are required to take part in the “day-to-day” funeral activities at a participating funeral home establishment for a total of eight hours per week to gain hands-on experience in all facets of funeral directing. Required tasks include embalming under the supervision of a licensed funeral director, cosmetizing, observing arrangement conferences, assisting with conducting services and any other related tasks in funeral service. Report submissions will be required of students throughout the term of the class documenting their tasks and progress. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-106** Credits: 3

### **Thanatochemistry**

Offers an in-depth study of the basic principles of chemistry as they relate to funeral service. Emphasis is on the chemical principles and precautions involved in preservation and disinfection of the dead human body. Discussion includes aspects of general chemistry, organic chemistry and biochemistry. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-110** Credits: 2

### **Introduction to Funeral Service**

This course begins with an orientation to funeral service and the value of a funeral. A comprehensive survey of history of funeral service is studied, then correlated to influences on contemporary funeral principles and practices. Also studied is the topic of ethics, emphasizing ethical standards and professional conduct essential in the funeral profession, along with personal ethics of a funeral director. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-112** Credits: 3

### **Laws, Rules and Regulations of Funeral Service**

This course examines the legal responsibilities, duties, rights and liabilities of the funeral director and funeral establishment. Topics include federal, state, and local laws and regulations as they relate to funeral practices, human remains, final disposition, cemeteries, crematories, shipping remains and public health. Also studied are torts pertaining to funeral service, contracts, wills, probate and preneed funeral arrangements. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-114** Credits: 2

### **Pathology of Funeral Service**

General disease processes, specific diseases and causative factors are presented. Clinical features are correlated with pathologic changes, and necropsies are discussed. Particular emphasis is placed on diseases that tend to create embalming problems and situations with medicolegal implications. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-116** Credits: 4

### **Funeral Service Practices**

This course focuses on duties, responsibilities and expectations of the funeral director relating to funeralization, from the first notification of death through final disposition of the deceased. This includes procedures for various religious customs as practiced in the U.S., along with secular, military and fraternal funeral practices. Creating a meaningful and personalized funeral is also emphasized. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

**FUNERL-118** Credits: 3

### **Funeral Service Management**

Basic principles of business and management are covered, then applied to funeral establishments and operations. All areas of small-business management are studied, including considerations of starting, buying and managing a funeral home. Also included is a detailed study of funeral home merchandise, including caskets, outer burial containers, cremation products, focusing on construction, merchandising and presentation. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).



# FUNERL – GRDS

## **FUNERL-119** **Credits: 1**

### **Embalming Lab 2**

This lab is a continuation of Embalming Lab 1. The lab will allow the student to expand on the process of preparing deceased individuals for viewings in a funeral setting. Students will apply knowledge from their combined lecture courses (Embalming Theory, Restorative Art, Thanatochemistry, Anatomy, Field Experience) and utilize industry standard instruments, chemicals, and techniques to embalm, dress, casket and cosmetize the deceased. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-121** **Credits: 1**

### **National Board Exam Prep I**

This course will provide weekly guided review and extensive testing practice of general funeral service curriculum and National Board Exam content areas covered in the first half of the program, while identifying students' learning styles and reinforcing test-taking strategies. Topics from both funeral service arts and sciences are included in this course. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1), or be a graduate of any ABFSE accredited mortuary science program.

## **FUNERL-122** **Credits: 1**

### **National Board Exam Prep II**

This course is a continuation of National Board Exam Prep I, with weekly guided review and extensive testing practice of funeral service technical course curriculum and National Board Exam content areas presented in the second half of the program. Simulation board exam experiences will be provided to mitigate high-stakes test anxiety and to determine overall board readiness. Topics from both funeral service arts and sciences are included in this course. Prerequisite(s): Must be in their last semester of the Funeral Service program (10-528-1), or graduate of any ABFSE accredited mortuary science program.

## **FUNERL-123** **Credits: 3**

### **Restorative Art**

Students will learn about the principles of restorative art as they relate to funeral service. The course focuses on the techniques of restoring and recreating an acceptable physical appearance of the deceased through establishment of proper form and color of a given case. Proportional relationships, the anatomical structure of the facial area of the human skull, wax modeling, color theory, lighting, and cosmetic principles are presented along with the guidelines, materials and the steps needed to address minor and major restorations. Students practice restorative art in laboratories provided by the college. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-124** **Credits: 1**

### **Restorative Art Lab**

This lab will allow the student to apply knowledge from the Embalming and Restorative Art lecture course. Students will employ color theory and modeling techniques through the

use of cosmetics, wax, clay and other types of media to restore the deceased to an acceptable physical appearance. Lab work will take place in the embalming lab space on deceased cases as well as in the restorative art classroom on model heads. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-134** **Credits: 3**

### **Embalming Theory**

Students will learn the basics of the embalming process and study of the phenomenon of death in the human body, government regulations applicable to the embalming process, embalming analysis and reporting, embalming techniques and instrumentation, procedures and treatments for handling the deceased, including difficulties encountered due to disease and pathological changes, autopsied and procurement cases, organ and tissue donation cases, and various conditions encountered in the dead human body. Students will practice embalming in laboratories provided by or approved by the college. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-135** **Credits: 1**

### **Embalming Lab 1**

This lab will allow the student to employ hands-on learning, preparing deceased individuals for viewings in a funeral setting. Students will apply knowledge from the Embalming Theory course to properly prepare the deceased to an acceptable physical appearance through the use of industry standard instruments, chemicals and techniques. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-136** **Credits: 2**

### **Funeral Service Science**

Discusses the study of the morphology, taxonomy, physiology, transmission and control of microbes, especially those which cause disease in humans. The process of infectious disease and defense mechanisms of disease will be covered. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-137** **Credits: 1**

### **Funeral Service Management Lab**

The focus of the FUNERL-137 lab is to practice, through role playing, all components of the funeral arrangement conference with effective and professional interpersonal communication. This prepares the student for a capstone project of conducting a simulated arrangement conference, demonstrating the ability to plan funeral services, provide final disposition options, create an obituary, convey legal requirements and disclosures, facilitate merchandise selection, discuss pricing, and complete the funeral contract. Various scenarios pertaining to the notification of death to the funeral home are also simulated. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-153** **Credits: 3**

### **Psychology of Funeral Service**

Basic principles and theories of psychology and counseling are presented as they relate to

funeral service. All aspects of grief, mourning and bereavement are examined, including psychological and sociological influences on grief responses. A study of grief as it relates to children and the family structure is included, along with grief characteristics based on cause and manner of death. Effective verbal and nonverbal communication skills are identified and applied to the role of the funeral director as a counselor. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

## **FUNERL-155** **Credits: 1**

### **National Board Prep Intensive**

This six-week online course provides a condensed yet comprehensive preparation for the National Board Exam for Funeral Directors. Content review of all curriculum topics in the Funeral Service program is provided, along with substantial and intensive practice-testing. Emphasis is placed on reinforcing memory recall through sequenced testing repetition, testing feedback and multiple types of learning resources. Prerequisite(s): Instructor consent required.

## **GENST – General Studies (Department 890)**

### **GENST-204** **Credits: 3**

#### **College Success Seminar**

This course provides learners with strategies to develop tools for success in college and life. Students will learn academic and research skills. Students will develop strategies, behaviors and habits that lead to success in personal responsibility, goal setting, self-motivation, self-management, interdependence and multicultural awareness. Learners will apply self-management techniques, explore financial management strategies, practice study skills and apply methods to improve personal effectiveness.

## **GEOSCI – Geological Science (Department 806)**

### **GEOSCI-112** **Credits: 3**

#### **Principles of Sustainability**

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems; summarize the effects of sustainability on health and well-being; analyze connections among social, economic and environmental systems; employ energy conservation strategies to reduce the use of fossil fuels; investigate alternative energy options; evaluate options to current waste disposal and recycling in the United States; and analyze approaches used by your community to promote and implement sustainability.

### **GEOSCI-232** **Credits: 3**

#### **Earth Science**

This course introduces students to the fields of geology, meteorology, astronomy and oceanography. It emphasizes humans' continually evolving techniques of exploring both the past and the present world and universe.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**GEOSCI-233** Credits: 3

### **Environmental Science**

This course introduces basic scientific principles necessary to an understanding of the relationships between mankind and the environment, with special focus on the effects of mankind's activities on the environment.

**GEOSCI-234** Credits: 1

### **Earth Sciences Laboratory**

This laboratory course introduces students to the earth sciences through first-hand activities and exploration. Subject matter differs in different sections. The course may emphasize identifying minerals, rocks and fossils; interpreting and compiling maps (including GIS); observing and forecasting weather conditions; collecting and analyzing environmental data; and/or other earth science topics. Please consult the instructor or department of Physical Science instructional chairperson for specific content. Prerequisite(s): Completion of or currently enrolled in GEOSCI-232 is required.

**GEOSCI-243** Credits: 3

### **Weather Fundamentals**

The course assists students whose work and interests require a general knowledge of atmospheric science. Applications appear in agribusiness, architectural design, insurance underwriting, environmental control, health and safety occupations, water resource industries, fabrication of materials (textiles, paint, plastics), physical geography, and oceanography.

**GEOSCI-244** Credits: 1

### **Weather Fundamentals Laboratory**

This laboratory course complements GEOSCI-243 (Weather Fundamentals) by providing additional investigations involving real-time data and satellite images, plus a comprehensive range of critical thinking exercises.

**GEOSCI-245** Credits: 4

### **General Geology**

This introductory geology course emphasizes the earth's dynamic processes as well as its composition, structure and surface features. The laboratory introduces the identification of rocks and minerals, and teaches mapping skills. Field trips are included.

**GEOSCI-246** Credits: 3

### **Climate Change Fundamentals**

This course examines critically our understanding of climate and its causes, the evidence of past and present climate change and models of future climate change, as well as the probable impacts of climate change on society and implications for future energy resources and the economy.

## **GLOBAL – Global Studies (Department 140)**

**GLOBAL-113** Credits: 1

### **International Field Studies – 1**

Emphasizes the importance of integrating international awareness in the student's program. Students explore the facets of the international environment, examining ethical, cultural, social, and organizational similarities and differences.

**GLOBAL-115** Credits: 3

### **International Field Studies**

Emphasizes the importance of integrating international awareness in the student's program. Students explore the facets of the international environment, examining ethical, cultural, social, and organizational similarities and differences.

## **GRDS – Graphic Design (Department 201)**

**GRDS-103** Credits: 3

### **Design Elements and Principles**

This course develops the student's ability to express meaning with graphic form by introducing basic knowledge of shape and space, unity and components, contrast, hierarchy, psychology of color, sign and symbol. Students will also learn how to utilize the available media and work within design constraints.

**GRDS-104** Credits: 3

### **Researching and Concepting**

Successful graphic design needs careful planning and research before ideas are explored. In this course, students will experience the professional design process from clarification of the client's objective to analysis and research of visual reference and contemporary trends, to implementation of the final comprehensive design. Prerequisite(s): Complete GRDS-103.

**GRDS-107** Credits: 3

### **Digital Imaging: Adobe Photoshop**

This course is an introduction to digital imaging in Adobe Photoshop as it applies to design and illustration. Students learn digital color correction, retouching, image manipulation, special effects, image composing and creative design techniques. Differences between raster and vector graphics are discussed. Students also learn how to manage files, optimize images for print output and multimedia applications.

**GRDS-110** Credits: 3

### **Layout and Publishing InDesign**

This course builds the essential skills in popular desktop publishing programs. Topics covered include integrating graphics and photos into publication, formatting type, creating tables, importing files, managing story threads, managing color, and assembling pages. Design principles and processes specific to publications will be emphasized. Creative assignments range from newsletters, magazines and books to electronic publications. Prerequisite(s): Complete GRDS-115.

**GRDS-111** Credits: 3

### **Advertising Design**

This course is an introduction to advertising layout, from rough concepts to comprehensive presentations. Students will explore effective design styles, use of typography and various rendering techniques. Prerequisite(s): Complete GRDS-107.

**GRDS-112** Credits: 3

### **Graphic Design Workshop**

In addition to a course facilitator, five visiting professionals who exemplify the broad spectrum of practice within the graphic arts industry will present mini seminars scheduled for three weeks each. These professionals will represent members of the regional graphic arts community, including graphic/web designers, art/creative directors, photographers and illustrators. Prerequisite(s): Complete GRDS-121.

**GRDS-113** Credits: 3

### **Digital Media Preparation**

An advanced layout and production course addressing the present advertising market. Students prepare concepts through campaigns for digital distribution. Topics covered include digital advertising, email marketing, basic web design, layout and coding as well as interactive and social media design and considerations. Prerequisite(s): Complete GRDS-129.

**GRDS-115** Credits: 3

### **Typographic Fundamentals**

This course introduces typography history, vocabulary and basic skills. Students will learn the type anatomy and the absolute and relative measurement system. Creative projects include both editorial and illustrative typography with proper typeface selection, composition, legibility, aesthetics and hierarchy. Students will learn basic tools in Fontographer in understanding the structure of digital type.

**GRDS-116** Credits: 3

### **Integrated Design Thinking**

Through examining experiences of using personal computers, hand-held devices, and physical tools, environments and processes, this course introduces the fundamental concepts of interaction and interface design, including information structure, perceived affordance, icon, label, page layout, metaphor, navigation and orientation. Students will learn user-centered design methodology. The course also briefly surveys social, cultural, behavioral, cognitive and emotional human factors pertaining to complex design issues. Prerequisite(s): Complete GRDS-110.

**GRDS-117** Credits: 3

### **Packaging Design**

This course focuses on seeing and designing in three dimensions for product packaging, point of purchase display (POP) and environmental graphics. Graphic continuity, content, client/customer research and aesthetic issues are dealt with at length. Students will also learn simple model-making techniques and choosing appropriate materials. Prerequisite(s): Complete GRDS-122.

# GRDS – HIT

**GRDS-121** Credits: 3

## **Exhibition Design**

This course focuses on designing in three dimensions for larger scale exhibit and display applications. Client research, exhibit functionality, technical file preparation and aesthetic issues are dealt with at length. Students will refine model-making techniques and learn methods of reproduction. Prerequisite(s): Complete GRDS-117.

**GRDS-122** Credits: 3

## **Vector Graphics: Adobe Illustrator**

This course addresses the concepts and techniques of creating illustrations and images for use in print and digital applications utilizing current industry-standard drawing software: Adobe Illustrator. Assignments include the creation of logos, symbols, technical illustrations, information graphics and art for other applications.

**GRDS-126** Credits: 3

## **History of Design**

This course surveys the history of media forms and communication technologies, charting the historical trajectory from the alphabet to the internet. It explores mediation in and across time and the emergence and development of different media forms in relation to particular social, economic, perceptual, and technological conditions and historical moments. Prerequisite(s): Complete GRDS-110.

**GRDS-128** Credits: 1

## **Portfolio Pathway**

Exit course for pathway students and portfolio checkpoint for program students. This course will help students evaluate their current portfolio, existing work, and modifications and improvements based on critique. Students will develop an online portfolio of work using Behance, WordPress or any blog platform. Prerequisite(s): Complete GRDS-103.

**GRDS-129** Credits: 3

## **Motion Graphic Design**

An advanced layout and production course addressing motion graphic design. Students prepare concepts to finished pieces for digital distribution. Topics covered include design techniques for time-based media through a variety of mediums. Prerequisite(s): Complete GRDS-110.

**GRDS-142** Credits: 3

## **Brand and Media Strategies**

This course examines the elements of surprise, which carry tremendous weight, both as a tool for retention and word-of-mouth transference. This course studies the pros and cons of guerilla and viral methods through case study and real-life project application. Prerequisite(s): Complete GRDS-110.

**GRDS-153** Credits: 3

## **Portfolio Assessment**

In this course, students will learn portfolio preparation and presentation, networking and

establishing contacts, job interviewing skills, resume writing, completing job applications, and follow-up. Guest speakers will add professional insight. Prerequisite(s): Complete GRDS-129.

## **HEALTH – Health (Department 501)**

**HEALTH-101** Credits: 3

### **Medical Terminology**

Focuses on the component parts of medical terms: prefixes, suffixes and word roots. Students practice formation, analysis and reconstruction of terms. Emphasis on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems as well as systemic and surgical terminology.

**HEALTH-104** Credits: 2

### **Contemporary Healthcare Practices**

An introduction to contemporary healthcare practices for students interested in a career serving diverse healthcare communities. Learners explore the essential skills required for equitable and inclusive person-centered interactions. Learners examine various health communities, mindful practices, professionalism, problem-solving and patient confidentiality.

**HEALTH-107** Credits: 2

### **Digital Literacy for Healthcare**

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use and digital healthcare resources are examined.

**HEALTH-110** Credits: 1

### **Basic Nutrition for Health Professionals**

The Basic Nutrition for Health Professionals course is designed to provide students with a baseline understanding of how diets are recommended for patients.

**HEALTH-112** Credits: 3

### **Introduction to Public Health**

A survey and analysis of current public health problems incorporating an epidemiologic framework. A basic introduction to community health history and organization is followed by specific health issues analyzed through the agent, host and environmental interrelationships. Primary, secondary and tertiary prevention, and health promotion strategies are detailed.

**HEALTH-160** Credits: 2

### **Study Strategies for Health Occupations**

This course focuses on creative thinking, brain-based learning principles, information processing and memory strategies, as well as life management skills. Learning strategies are taught to assist learners in integrating and processing technical information in a meaningful way.

## **HIST – History (Department 803)**

**HIST-203** Credits: 3

### **Western Civilization From Ancient Times to 1716**

This course surveys the evolution of Western civilization from ancient times to 1776. Special emphasis is placed on the development and interactions of the political, social, religious and economic institutions that form the foundations of Western civilization today.

**HIST-204** Credits: 3

### **Western Civilization From 1776**

This course surveys the evolution of Western civilization from 1776 to the present time. Special emphasis is placed on the development and interactions of the political, social, religious and economic institutions that form the foundations of Western civilization today.

**HIST-206** Credits: 3

### **America Since 1945**

This course analyzes domestic and foreign policy of the United States since World War II. Beginning with the Truman administration, it moves through the current time. The emphasis is on changes in America's role in international affairs, growth in presidential power and changes within American society. Special attention is devoted to the Middle East, Asia, Latin America, the Civil Rights Movement, the cultural revolution of the '60s and New Federalism.

**HIST-210** Credits: 3

### **Women in American History**

This course provides an analysis of the experiences of women in the development of America. Emphasis is placed on the impact of women in the political, economic and social events that shaped the nation, and the growing awareness in women of their role in society.

**HIST-211** Credits: 3

### **America Through 1877**

A survey of the history of the United States from 1500 to 1877. Emphasis is placed on colonial development, the movement for independence and the establishment of government under the Constitution. Special attention is devoted to the evolution of political democracy, economic developments, the emergence of the sectional controversy leading to the Civil War and the period of Reconstruction that followed.

**HIST-212** Credits: 3

### **America Since 1877**

The major developments in United States history from the 1870s to the present are traced. Attention is focused on industrialization, urbanization, development of the West, reform movements and the emergence of the United States as a world power.

**HIST-213** Credits: 3

### **America: 1921-1945**

This course focuses on America in prosperity, depression and war. It assesses the successes and



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failures of people, famous and not so famous, who confronted economic and social disasters at home and tyranny abroad.

**HIST-214** **Credits: 3**

### **African American History**

A comprehensive introduction to the historical and sociological background of African American people. An African-centered approach will be used to focus on the political, economic and cultural history of African Americans from 3900 B.C. to 1865. An analysis is made of the cultural and historical policies and practices that have shaped African American people's relationship to other people of the world.

**HIST-215** **Credits: 3**

### **African American History and Culture**

A comprehensive study of African American history since the Civil War. An African-centered approach will be utilized to analyze the political, economic and cultural history of African Americans from 1865 to the present.

**HIST-216** **Credits: 3**

### **History of American Minorities**

This course highlights the role of minorities in the history of America. The cultural, social and political history of African Americans, Hispanic Americans, Asian Americans and other European immigrants are studied. A cross-cultural approach shows the distinctive cultural patterns of the various groups and their contributions to the dominant culture.

**HIST-217** **Credits: 3**

### **Contemporary Civil Rights**

This course familiarizes the student with the period of history commonly referred to as the modern civil rights era, 1953 to 1969. It introduces the student to the events, individuals, social, political, religious linkages and activities that give this period its historical relevance and prominence.

**HIST-218** **Credits: 3**

### **Native American History**

The purpose of this course is to provide an instruction to Native American history and culture. Indian/non-Indian relationships over time will be the central focus of the course.

**HIST-219** **Credits: 3**

### **Wisconsin Indians Past/Present/Future**

This course presenting the history of Wisconsin Indians is designed to provide all Wisconsin residents, Indian and non-Indian, with an in-depth understanding of indigenous people from Wisconsin. The course provides the student with data, prehistorical and historical, in order to cover the broad range of time involved in the study of the Wisconsin Indian Nations.

**HIST-226** **Credits: 3**

### **African History 1 Before 1800 C.E.**

This course discusses African history from human origins to the start of European expansion into tropical Africa in the 19th century. It examines precolonial African civilizations such as the kingdoms and empires

developed in the northeast, west, central and southern Africa. It examines the early contact of Africans with the outside world, for example, through the spread of Islam and Christianity and the migration of the major African ethnic groups. It explores the internal African slave trade; the political, economic and sociocultural institutions; and the regional diversity of Africa at the eve of colonial rule.

**HIST-227** **Credits: 3**

### **African History 2 Since 1800 C. E.**

This course explores the major political, economic and sociocultural transformations taking place in Africa from the start of European territorial expansion in the early 19th century to the present. It examines the implementation and challenges of colonial rule, the decolonization process, the rise of African nationalism, and the diverse conditions facing independent African countries. It explores the challenges of African governments at nation building and the different strategies adopted in that effort.

**HIST-228** **Credits: 3**

### **World History to 1500**

This course examines global history from antiquity to 1500 C.E. It explores from the first river valley civilizations through the Bronze Age, to the development of writing, the depiction of the human form and the creation of new communities in the Middle East. It examines the spread of world religions and the building of huge empires in Europe, Asia, the Americas and Africa. The course stresses that history, with its different definitions and ways of studying the past, is not reserved for a particular group. It embodies written and material culture and activities carried out by people all over the world.

**HIST-229** **Credits: 3**

### **World History Since 1500**

World History Since 1500 is a survey of the world's last five centuries, stressing its social diversity, interconnectedness, cross-cultural contact and geography in a way that enhances understanding about the way in which we live today.

**HIST-231** **Credits: 3**

### **Latin American History**

This course is subdivided into the following topics: precolonial civilizations, the colonial period, independence, the republican period and contemporary Latin America. Special emphasis is given to U.S.-Latin American relations and to the problems of development.

**HIST-232** **Credits: 3**

### **History of Wisconsin**

This course covers the history of the state of Wisconsin and of Milwaukee as a Wisconsin hub city. It traces the formative and developmental stages and patterns in Wisconsin, and Milwaukee's unique social, political and economic history, with special focus on the rich and diverse multiethnic and multicultural heritage in the backdrop of Wisconsin's seasonal array of natural beauty, wonderlands and festivals.

**HIST-236** **Credits: 3**

### **History of the Vietnam War Years**

This course examines the American experience in the Vietnam War. It will deal with the roots of the conflict in French colonialism in Southeast Asia and the containment principles of U.S. foreign policy, and traces the course of the war through the Kennedy, Johnson and Nixon administrations. It also examines the domestic political response to the war and the literature produced by Vietnam veterans.

## **HIT – Health Information Technology (Department 530)**

**HIT-159** **Credits: 3**

### **Healthcare Revenue Management**

Prepares learners to compare and contrast healthcare payers, illustrate the reimbursement cycle and comply with regulations related to fraud and abuse. Learners assign payment classifications with entry-level proficiency using computerized encoding and grouping software. Prerequisite(s): Must be admitted to Medical Coding program (31-530-2). Complete HIT-162, HIT-197, HIT-199 and HIT-182. Completion of or currently enrolled in HIT-165 and HIT-184.

**HIT-161** **Credits: 3**

### **Health Quality Management**

Explores the programs and processes used to manage and improve healthcare quality. Addresses regulatory requirements as related to performance measurement, assessment and improvement, required monitoring activities, risk management and patient safety, utilization management, and medical staff credentialing. Emphasizes the use of critical thinking and data analysis skills in the management and reporting of data. Prerequisite(s): Complete HIT-163.

**HIT-162** **Credits: 3**

### **Foundations of HIM**

Introduces learners to the healthcare delivery system and the external forces that influence healthcare delivery. Sets an understanding for the expectations and standards related to professional ethics, confidentiality and security of health information. Differentiates the use and structure of healthcare data elements, data standards and the relationships between them. Prepares learners to collect and maintain health data to ensure a complete and accurate health record. Prerequisite(s): Must be admitted to the Health Information Technology (10-530-1) or Medical Coding Specialist (31-530-2) programs. Complete HEALTH-101. Completion of or currently enrolled in HEALTH-107.

**HIT-163** **Credits: 3**

### **Healthcare Stats and Analytics**

Explores the management of medical data for statistical purposes focusing on descriptive and inferential statistics including definition, collection, calculation and compilation of numerical data. Examines data analytics, retrieval, presentation and research methodologies. Prerequisite(s): Complete HIT-162 and HEALTH-107.



# HIT – HOTEL

## **HIT-164** Credits: 3

### **Introduction to Health Informatics**

Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business and health information software applications. Learners will develop skills to assist in enterprise information management and database architecture design and implementation. Prerequisite(s): Complete HIT-162 and HEALTH-107.

## **HIT-165** Credits: 3

### **Intermediate Coding**

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation and official coding guidance to support appropriate reimbursement. Students will participate in CDI activities, including preparation of appropriate physician queries in accordance with compliance guidelines. Additional Course Fees listed here are in addition to general tuition and are charged at registration. EHR Go Electronic Health Record: \$70.00; AHIMA VLab Coding Program: \$75.00. Prerequisite(s): Must be admitted to the Healthcare Information Technology program (10-530-1) or the Medical Coding Specialist program (31-530-2). Complete HIT-197 and HIT-199. Completion of or currently enrolled in HIT-184 and HIT-159.

## **HIT-166** Credits: 1

### **HIT Capstone**

Explore technical skills and professional attributes desired for the HIM profession and conduct activities to assess one's own readiness to enter the health information industry. Prerequisite(s): Completion of or currently enrolled in HIT-196.

## **HIT-167** Credits: 3

### **Management of HIM Resources**

Examines the principles of management to include planning, organizing, human resource management, directing and controlling as related to the health information department. Prerequisite(s): Complete HIT-162 and HIT-165.

## **HIT-178** Credits: 2

### **Healthcare Law and Ethics**

Examines regulations for the content, use, confidentiality, disclosure and retention of health information. An overview of the legal system and ethical issues are addressed. Prerequisite(s): Complete HIT-162.

## **HIT-182** Credits: 3

### **Human Diseases for Health Professions**

This course focuses on the common diseases of each body system as encountered in all types of healthcare settings by health information professionals. Emphasis is placed on understanding the etiology (cause), signs and symptoms, diagnostic tests, and treatment (including pharmacologic) of each disease. Prerequisite(s): Complete BIOSCI-177 or BIOSCI-189 or both BIOSCI-201 and BIOSCI-202 and HEALTH-101 with a grade of C or higher.

## **HIT-184** Credits: 3

### **CPT Coding**

This course prepares students to assign CPT codes, supported by medical documentation, with entry-level proficiency. Students apply CPT instructional notations, conventions, rules and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation. Prerequisite(s): Must be admitted to the Medical Coding Specialist program (31-530-2) or the Health Information Technology program (10-530-1). Complete HEALTH-101, HEALTH-107 and HIT-182 with grade of C or higher. Complete either BIOSCI-177 or BIOSCI-189, or both BIOSCI-201 and BIOSCI-202, with a grade of C or higher.

## **HIT-196** Credits: 3

### **Professional Practice**

Applies previously acquired skills and knowledge by means of clinical experiences in the technical procedures of health record systems and discussion of clinical situations. Students may participate in a supervised clinical experience in healthcare facilities. Prerequisite(s): Must be admitted to Health Information Technology (10-530-1) or Medical Coding Specialist (31-530-2) programs. Complete HIT-165. Completion of or currently enrolled in HIT-161, HIT-164 and HIT-166.

## **HIT-197** Credits: 3

### **ICD Diagnosis Coding**

This course prepares students to assign ICD diagnosis codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation. Prerequisite(s): Must be admitted to the Medical Coding Specialist (31-530-2) or the Health Information Technology (10-530-1) programs. Complete BIOSCI-177 or BIOSCI-189 or both BIOSCI-201 and BIOSCI-202 or HEALTH-101 and HEALTH-107 with a grade of C or higher. Completion of or currently enrolled in HIT-182.

## **HIT-199** Credits: 2

### **ICD Procedure Coding**

This course prepares students to assign ICD procedure codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation. Prerequisite(s): Must be admitted to the Medical Coding Specialist (31-530-2) or the Health Information Technology (10-530-1) programs. Complete BIOSCI-177 or BIOSCI-189 or both BIOSCI-201 and BIOSCI-202. Complete HEALTH-101 and HEALTH-104 with a grade of C or higher. Completion of or currently enrolled in HIT-182.

# HORT – Horticulture (Department 001)

## **HORT-111** Credits: 3

### **Introduction to Horticulture**

This course provides an overview of the horticulture profession. Its role and importance throughout history, current trends, and career opportunities will be covered. Particular attention is given to horticulture crops, plant classification, their use, and the interrelationships between the environment, plant growth, and plant development.

## **HORT-112** Credits: 3

### **Horticulture Soils**

This course explores the properties of soils and applies them to horticultural uses as a growing medium and as an engineering base for landscaping.

## **HORT-114** Credits: 3

### **Survey of Woody Ornamental Plants**

Plant classification and the techniques of plant identification are explained. The student utilizes these techniques in identifying commonly used deciduous and evergreen trees and shrubs.

## **HORT-115** Credits: 3

### **Plant Pests and Controls**

The invertebrates, diseases, vertebrates and abiotic disorders of landscape plants are studied, along with control methods specific to each. An integrated pest management approach in the control of pests using biological, cultural, mechanical and chemical applications will be included. Emphasis is on correct diagnosis and use of the integrated pest management (IPM) system of control.

## **HORT-116** Credits: 3

### **Landscape Equipment**

This course covers maintenance, adjustment and productive use of specialized rolling stock and tools used in landscaping. Students practice safe operation of an array of landscape equipment.

## **HORT-119** Credits: 3

### **Landscape Construction**

This course provides an overview of the installation of hardscape features of the landscape. Included are basic construction techniques for retaining walls, outdoor steps, paving (patios, walks and drives), decks and fences. Limitations in executing hardscape designs are discussed.

## **HORT-120** Credits: 3

### **Sustainable Construction**

This course focuses on developing proficiency in landscape installation. Students practice skill development with specialized landscape construction equipment, which enhances labor efficiency in completing projects.

## **HORT-121** Credits: 3

### **Irrigation, Lighting and Ponds**

These landscape accessories augment both the greenscape and the rest of the hardscape. They are increasingly popular add-ons to

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commercial, as well as residential projects. As part of a national trend, irrigation, low voltage, lighting and water features contribute to more sophisticated outdoor living areas.

### **HORT-122 Credits: 3** **Landscape Design I**

This course provides the student with the initial experience needed to understand the fundamental processes used in creation of a landscape design. This includes contracting with a client, assessing fundamental client needs, site measurement, client analysis, environmental analysis, functional analysis, the use of geometric form and planting design principles.

### **HORT-123 Credits: 3** **Landscape Horticulture – Design II**

Learn to draw landscape graphics and understand what makes them readable. Review and practice design processes, including planting design and its basic elements. Practice planting design developed first in a class client contact project. Prerequisite(s): Complete HORT-122.

### **HORT-125 Credits: 3** **Landscape Maintenance Application**

Students will learn concepts in landscape management and health such as establishment, pruning, weed control, mulching, fertilization, winter protection and basic turf management.

### **HORT-126 Credits: 3** **Landscape Estimating and Bidding**

The numerical aspects of landscape installations and maintenance are studied, including estimation of labor and material costs. Linear, area and volume calculations of materials needed for landscape projects from landscape plans are thoroughly covered as well as garden center figuring, landscape design calculations, nursery and greenhouse setup, and fertilizer materials and calibration.

### **HORT-127 Credits: 3** **Arboriculture 1: Tree Care Fundamentals**

Students will learn tree establishment, pruning, bracing and cabling, problem treatments, fertilization, rigging and removal, avoidance and treatment of construction damage, tree risk and decay detection, rope and harness tree climbing, and knot tying. Brush chippers, stump cutters, aerial lifts, root excavators and chainsaws are demonstrated and operated. The current Safety Requirement Standards (ANSI Z133) and Standard Practices (ANSI A300) are stressed.

### **HORT-128 Credits: 3** **Arboriculture II Climbing and Pruning**

In an outdoor setting, this course provides practical application to principles presented in the previous arboriculture course. The students observe and perform skills in tree climbing and pruning, as well as tree repair, practical rigging and tree removal as opportunities present themselves. Knowledge of safe tree care operations and tree pruning standards are stressed, and students gain skills in knot tying, aerial rescue and clear communication.

### **HORT-129 Credits: 3** **Arboriculture III - Rigging and Removal**

In an outdoor setting, students rig and remove trees using various techniques and equipment. Students become competent in determining methods of tree removal, and skilled in operation of chainsaws and selection of removal equipment. Safe work practices, clear communication and knots needed for removals are stressed.

### **HORT-130 Credits: 1** **Pesticide Applicator Training**

The focus of this course is training to successfully pass the Wisconsin Department of Agriculture and Consumer Protection's pesticide applicator exam, Category 3.0 - Turf and Landscape (which will be proctored in this class). Additionally, students will be familiarized with principles of pest control, equipment calibration, as well as pesticide handling, mixing, safety, application and laws.

### **HORT-131 Credits: 3** **Landscape Business and Marketing**

This course will create awareness of the elements involved in starting and running a business within the horticulture industry. Subjects studied are horticulture industry resources and trends, types of legal ownership, client relationships and contracts, staff relationships and supervision, financial resources and financial statements for business plans, legalities of landscaping, landscape industry paper trails, marketing and sales. The final project of this course is a mock business plan.

### **HORT-133 Credits: 3** **Turf Management and Related Equipment**

The description and identification of turf grasses used in the landscape industry are studied. Emphasis is on cultural requirements, pet problems, and equipment used in establishing and maintaining turf.

### **HORT-134 Credits: 3** **Greenhouse Production Fall Crops**

This course provides an overview of greenhouse production of crops grown in fall and winter. Planning and growing of the crops is the main focus.

### **HORT-135 Credits: 3** **Herbaceous Plants**

This course introduces herbaceous landscape plant materials for Zone 5 or colder climates. Emphasis is on identification, cultural and maintenance requirements, and use in landscape design.

### **HORT-136 Credits: 3** **Landscape Design III**

This course briefly reviews outdoor rooms and planting design. Actual situations with clients are used. Projects include study and design of vehicular circulation, steps and walls, a community project, and a specialty project. There will be class collaboration and class presentations to clients. Students are encouraged to review each other's work. Color projects are also encouraged. Prerequisite(s): Complete HORT-122 and HORT-123.

### **HORT-139 Credits: 3** **CAD for Landscape Design**

This course will introduce students to computer design software used to create landscape designs. The students will learn basic commands for setting properties, drawing graphic elements, dimensioning, labeling and plotting. The class will focus on the use of AutoCAD, but other industry design programs will be discussed and practiced.

### **HORT-152 Credits: 3** **Greenhouse Production – Spring**

Students will grow spring greenhouse crops from propagation, transplanting, fertilization, to market. Cultural care for each crop will be done under greenhouse growing conditions. Schedules of crops and planning of greenhouse space will be covered.

### **HORT-153 Credits: 3** **Advanced Woody Plants**

The study of woody landscape plants is broadened to include evergreen and deciduous tree and shrub cultivars (landscape zone 5 and colder) as well as woody vines. Emphasis is on cultural requirements, uses in various landscape settings and identification. Prerequisite(s): Complete HORT-114.

### **HORT-163 Credits: 3** **Native Plants – Fall**

In this course, students identify the basic plant communities that are native to Wisconsin, especially to southeastern Wisconsin. Students become familiar with a selection of native plants that make each of these communities unique. Students also study how to cultivate these plants for use in ecologically based landscape design.

### **HORT-193 Credits: 3** **Native Plants – Spring**

This course teaches landscaping with native plants through on-site observation of native plant communities. Students also learn basic preservation and restoration techniques for native plant communities. Landscape design principles will be observed and noted.

## **HOTEL – Hospitality Management (Department 109)**

### **HOTEL-105 Credits: 3** **Hospitality Marketing, Sales and Revenue Strategy**

This course takes a practical perspective in introducing students to marketing, sales and revenue management of hotels and restaurants. The course identifies trends, market segmentations in the industry and the concept of revenue management.

### **HOTEL-110 Credits: 3** **Front Office Procedures and Management**

This course emphasizes front office techniques and management principles for the organization and operation of the lodging facility. The human and public relations responsibilities of the front office as well as routine procedures are an integral part of the course.

# HOTEL – HUMSVC

## **HOTEL-112** Credits: 3

### **Front Office Computerized Procedures**

Provides an overview of the informational needs of lodging properties and food service establishments; addresses essential aspects of computer systems, such as hardware, software and generic applications. The course focuses on computer-based property management systems for both front office and back office functions and examines features of computerized restaurant management systems. Describes hotel sales computer applications, revenue management strategies and accounting applications. The course also focuses on managing information systems and examines the impact of the internet and private intranets on the hospitality industry. Students also learn basic tasks on a mock reservation system such as making a reservation, group reservation, travel agent reservation and looking up availability. Students will learn the basic operation of Cvent and also become Cvent certified.

## **HOTEL-117** Credits: 3

### **Hospitality Law and Liability**

This course provides a study of the nature and function of our legal system as applied to hospitality, restaurant and travel operations. Operator/guest relationships, contracts, torts, civil rights and insurable risks are emphasized.

## **HOTEL-120** Credits: 3

### **Building Operations and Security**

Technical information necessary to establish effective maintenance and engineering functions is explored. An effective energy management program is discussed. Common mechanical problems and the procedures to correct them are emphasized. Security management to protect guests is reviewed.

## **HOTEL-122** Credits: 3

### **Basic Hospitality Accounting**

The basic structure of hospitality accounting is studied. The student will recognize the differences in hotel/hospitality accounting. Emphasis is placed on analysis and interpretation, as well as recording, classifying and summarizing phases.

## **HOTEL-124** Credits: 3

### **Managerial Accounting for the Hospitality Industry**

Accounting data is an aid to managerial decision-making. Emphasis is placed on the use of internal cost and segment data. Managerial accounting is an integral tool in planning and controlling operations. Prerequisite(s): Complete HOTEL-122.

## **HOTEL-127** Credits: 3

### **Fundamentals of Meetings and Special Events**

This course provides the Hotel/Hospitality Management student with the overall concept of conventions, weddings and catering sales and their contracts, including coordination of functions, to achieve the ultimate result — a satisfied customer.

## **HOTEL-130** Credits: 1

### **Internship-Hotel/Meeting Management**

The internship affords students the opportunity to experience employment while simultaneously having the advantage of being supervised by a program instructor/coordinator. Students complete a 16-week practical experience in an off-campus location. Prerequisite(s): Complete INTRN-796 with a grade of C or higher.

## **HOTEL-133** Credits: 3

### **Supervision in the Hospitality Industry**

The course is designed to provide students with the principles of supervision as they apply specifically to the hospitality industry: to identify the role of the supervisor in hospitality operations; to describe the communication skills essential for effective leadership; to understand the effect of labor storage, Equal Employment Opportunity laws, sexual harassment, cultural diversity, substance abuse and working with employee unions.

## **HOTEL-134** Credits: 3

### **Hospitality Revenue Management**

This course focuses on distinguishing between tactical and strategic revenue management. We explore foundational aspects of revenue management and develop a strategic revenue management focus. We focus on current challenges for revenue managers, big data and market intelligence, the role of digital marketing and market segmentation. Prerequisite(s): Complete HOTEL-105. Must be admitted to the Hospitality Management program (10-109-1) or the Event Management program (10-109-5).

## **HOTEL-135** Credits: 3

### **Hospitality Professional Service and Development**

In this course, students will be able to identify the difference between excellent and poor customer service along with how to anticipate a guest's needs in order to provide exceptional service and build rapport. Students will be able to define and demonstrate what professionalism means in the hospitality industry. After the completion of this course, students will have the opportunity to become Guest Service Gold Certified from the American Hotel and Lodging Association.

## **HOTEL-140** Credits: 3

### **Food and Beverage Operations**

The complete food and beverage operation in the hotel/motel complex is explored. A basic understanding of the principles of food production and service management, sanitation, menu planning, labor and cost controls, and purchasing is emphasized.

## **HOTEL-150** Credits: 2

### **Housekeeping Operations**

This course investigates the functions of the housekeeping department and the role of its managers in operating the department, and it introduces students to basic production skills. The housekeeping department is the training ground for room-division managers.

## **HRMGT – Human Resources (Department 116)**

### **HRMGT-124** Credits: 3

#### **Human Capital Analysis**

This course prepares the student to consolidate, analyze and display data at varying levels of detail in order to make human capital decisions the workplace. This course will also prepare Human Resources students for the "Associate Professional in Human Resources" certification, which provides knowledge pertaining to entry-level certification in the HR industry. Prerequisite(s): Complete HRMGT-193, BADM-106 and MATH-134.

### **HRMGT-133** Credits: 3

#### **Legal Issues and Employment Law**

Students apply the skills and tools necessary for human resource professionals to effectively perform related functions in today's work environment. Each student will demonstrate the application of legal practices in both union and nonunion environments, analysis of the impact of U.S. employment laws, the impact of the global economy, the appeal process, reacting to legal charges, documenting the hiring and firing process, dealing with harassment issues, privacy issues, and summarizing legal issues facing contemporary human resource professionals.

### **HRMGT-136** Credits: 3

#### **Safety in the Workplace**

In this course, students apply the skills and tools necessary to provide a safe and secure work environment. Each student demonstrates the application of safety awareness, federal/state/local compliance, incident investigation and documentation, human relations techniques, safety orientation, inspections, risk analysis, issues of workplace violence, substance abuse, health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

### **HRMGT-169** Credits: 3

#### **Diversity and Change Management**

In this course, students apply the skills and tools necessary to implement and maintain a diverse work environment that values change. Each student demonstrates the application of assessing the current extent of diversity in the workplace; analyzes the effect of perceptions, attitudes, biases and organization culture on diversity; deals with barriers; changes management strategy; and processes reactions, measures progress and celebrates success.

### **HRMGT-170** Credits: 3

#### **Employee and Labor Relations**

This course explores employee relation efforts in both unionized and nonunionized organizations.

### **HRMGT-193** Credits: 3

#### **Human Resource Management**

In this course, students apply the skills and tools necessary to effectively value and apply employees' abilities and needs to organization goals. Each student demonstrates the application



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of the various functions performed in contemporary human resources management, including impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies and procedures, training, performance management, employee counseling and development, and effective use of compensation and benefit strategies.

### **HRMGT-194** **Credits: 3** **Fundamentals of Compensation**

In this course, students apply the skills and tools necessary to develop and manage an effective compensation and benefit program for organizational employees. Each student demonstrates through application how to use compensation strategies to reinforce organizational goals and to recruit and retain a motivated workforce, determine wage ranges tied to internal and external equity, develop incentive programs for different types of positions, establish a cost-effective benefit program, and comply with legal requirements.

### **HRMGT-196** **Credits: 3** **Recruiting and Selection**

In this course, students will learn the importance of effective recruitment and selection processes as related to organizational effectiveness, sustainability and competitive advantage. Students will gain an understanding of the role of human resource management in strategic planning (specifically as it relates or links to employment and workforce planning). Emphasis will be placed on the recruitment process, recruitment budget, and critical steps in the selection process, selection assessments, interviewing, and compliance with state and federal employment laws, regulatory agencies, and internal company policies.

### **HRMGT-197** **Credits: 3** **Employee Training and Development**

Students will learn the fundamentals of training and development coordination. Emphasis will be placed on terminology, the systems approach to training (needs assessments, design, implementation and evaluation), learning principles, training methodology, and evaluation criteria as well as various employee development initiatives. Students will be able to effectively report return on investment and value-added of training initiatives and the impact on overall strategic goal achievement.

### **HRMGT-198** **Credits: 3** **Business Ethics**

Through this course, students will explore business ethics and corporate social responsibility in management practices and business activities. Students will review and examine ethical responsibilities and relationships between organizational departments, divisions, business management and the public. Through analysis of case studies, practical application projects and discussion groups, students will determine and evaluate specific strategies and courses of action that affect the individual and organization.

## **HSM – Healthcare Services Management (Department 530)**

### **HSM-129** **Credits: 3** **HR Management in HCOs**

In this course, learners will be introduced to employment-related functions and practices healthcare organizations utilize to develop and maintain an effective workforce while complying with local/federal laws. Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3).

### **HSM-130** **Credits: 3** **Health Services Coordination 1**

This course is an introduction to Health Services Coordination. Learners will examine healthcare-based clerical and systems coordination, communication support functions, facilitate the use of technology, and customer service interactions. Prerequisite(s): Must be admitted to the Healthcare Services Management (10-530-3) or Health Unit Coordinator (30-510-2) programs. Instructor consent required.

### **HSM-131** **Credits: 3** **Health Services Coordination 2**

This course is a continuation of the Health Services Coordination skills learned in HSM-130 (Health Services Coordination I). Students will be introduced to the functions and services provided within acute care areas as well as the various ancillary departments that facilitate diagnostic testing, treatment and support across diverse healthcare environments. Prerequisite(s): Must be admitted to Healthcare Services Management (10-530-3) or the Health Unit Coordinator (30-510-2) program. Instructor consent required.

### **HSM-132** **Credits: 3** **Health Services Applications**

In this course, learners will utilize electronic health records (EHR) simulation and case study-based practical learning to apply Health Services Coordination theoretical concepts, skills and functions within diverse healthcare environments. Prerequisite(s): Must be admitted to Healthcare Services Management (10-530-3) or the Health Unit Coordinator (30-510-2) program. Instructor consent required.

### **HSM-139** **Credits: 4** **Bioethics, Human Research Practice and Compliance**

Learners investigate the Human Research Protection Program (HRPP) to ensure the rights, welfare and privacy of all individuals participating in biomedical and/or behavioral studies. Topics include foundations and concepts of Institutional Research Board (IRB) practices, legal constructs, operational functions and documentation practices. Students will also be introduced to quantitative and interpretive research methods as well as bioethical applications and case studies. Prerequisite(s): Instructor consent required.

### **HSM-143** **Credits: 3** **Healthcare Quality Management**

This course introduces learners to various quality improvement methodologies utilized within diverse healthcare environments to encourage optimal patient care outcomes, safety and satisfaction. Prerequisite(s): Must be admitted to Healthcare Services Management program (10-530-3) and instructor consent required.

### **HSM-144** **Credits: 3** **Intro to the Business of Healthcare**

Students are introduced to the business aspects of healthcare through case study/project-based learning. Topics include organizational culture, leadership styles, managed care, patient education, documentation practices and reimbursement systems. Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3) and instructor consent required.

### **HSM-145** **Credits: 3** **Healthcare Law Ethics and Professional Standards**

In this case study-based course, students will learn about legal and ethical health-related concepts including HIPAA, Patient Bills of Rights, EMTALA, HITECH Act, Stark and Anti-Kickback Laws, as well as the informed consent process, fraud, professional credentialing, malpractice and negligence. Prerequisite(s): Must be Admitted to the Healthcare Services Management program (10-530-3) and instructor consent required.

### **HSM-146** **Credits: 4** **Leadership in Healthcare Organization**

This project-based course prepares learners to use problem-solving and decision-making skills to ensure optimal outcomes for self, patients and related stakeholders within diverse healthcare environments. Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3). Instructor consent required.

## **HUMSVC – Human Services (Department 520)**

### **HUMSVC-101** **Credits: 3** **Introduction to Human Services**

The primary focus is to introduce the beginning student to human service concepts and the broad range of occupations, professions and training requirements within the field. Field experiences and volunteer work are required. Prerequisite(s): Must be admitted to the Human Service Associate program (10-520-3). Completion of or currently enrolled in HUMSVC-144.

### **HUMSVC-102** **Credits: 3** **Interviewing Skills**

Students will practice and refine mastery of effective interviewing skills relevant to a wide range of human service practices. Prerequisite(s): Complete HUMSVC-101 and HUMSVC-144.



# HUMSVC – HYDPNU

## **HUMSVC-103** Credits: 3

### **Group Work Skills**

This is a practice-oriented course with a primary focus on developing skills, techniques and strategies utilized in a broad range of human service practice settings. A key component is to develop and demonstrate a workable knowledge base and awareness of the complexity of human behavior in groups. Prerequisite(s): Complete HUMSVC-144 and HUMSVC-101.

## **HUMSVC-104** Credits: 1

### **Field Preparation**

Students make formal preparations for field experience assignment, as well as prepare to secure employment after graduation. Students develop a professional portfolio, practice interview skills and reinforce their overall employment/work skills. Prerequisite(s): Complete HUMSVC-101, HUMSVC-102, HUMSVC-103, HUMSVC-113 and HUMSVC-144. Completion of or currently enrolled in HUMSVC-115.

## **HUMSVC-106** Credits: 4

### **Advanced Field Experience**

Advanced Field Experience must be taken concurrently with HUMSVC-107 Field Experience Seminar. Students are assigned to a community human service agency where they work 20 hours per week under the joint supervision of the agency and MATC field supervisors. Advanced Field Experience is designed to enhance the knowledge, skills and behaviors essential for human service workers in the professional setting. Students apply the material from their coursework to a real work situation. Prerequisite(s): Complete HUMSVC-101, HUMSVC-102, HUMSVC-103, HUMSVC-104, HUMSVC-113 and HUMSVC-115. Completion of or currently enrolled in HUMSVC-107.

## **HUMSVC-107** Credits: 2

### **Field Experience Seminar**

Field Experience Seminar must be taken concurrently with HUMSVC-106 Advanced Field Experience. This seminar provides the opportunity for students to discuss their field placement experiences and engage in consultation, networking and problem-solving. Students develop a strong knowledge base of community human service agencies and resources. Prerequisite(s): Complete HUMSVC-101, HUMSVC-102, HUMSVC-103, HUMSVC-104, HUMSVC-115, HUMSVC-144 and HUMSVC-113. Completion of or currently enrolled in HUMSVC-106.

## **HUMSVC-113** Credits: 3

### **Documentation and Recordkeeping**

Students will practice techniques involved with maintaining clinical records, documentation of referrals, staffing and consultations. Prerequisite(s): Complete HUMSVC-101 and HUMSVC-144.

## **HUMSVC-115** Credits: 3

### **Methods of Social Casework**

The application of casework theories, models and techniques, along with the management and coordination of case records, is the major focus of this course. Exercises will be designed to reflect variations in casework intervention techniques, depending upon the goals of the practice setting. This course should be taken the semester before entering Field Placement. A competency exam is given in the final stages of the course. Prerequisite(s): Complete HUMSVC-102, HUMSVC-103 and HUMSVC-113. Completion of or currently enrolled in HUMSVC-104.

## **HUMSVC-118** Credits: 3

### **Introduction to Gerontology**

This introductory course includes a demographic, cultural and ethnic profile of older adults. Major theories about aging are explored, as well as the interrelationships of biological, psychological and social aspects of aging.

## **HUMSVC-121** Credits: 3

### **Family Issues and Interventions**

This course focuses on issues related to families and family functioning relevant to the human services field. Special attention is paid to child maltreatment, domestic violence and addiction, with emphasis on the helping skills and services that are most effective. Prerequisite(s): Completion of or currently enrolled in HUMSVC-101 and HUMSVC-144.

## **HUMSVC-127** Credits: 3

### **Disabilities and the Helping Profession**

This course emphasizes awareness of physical, psychological and developmental disabilities, and examines the unique needs and resources of people with disabilities. Emphasis is placed on developing effective strategies for working with clients who are disabled.

## **HUMSVC-142** Credits: 3

### **Multicultural Competence in Human Service**

Students learn to build a foundation of culturally competent social work/human service practices that enable them to work effectively with diverse populations. Students develop skills through the acquisition of knowledge and awareness of various groups, cultures and lifestyles.

## **HUMSVC-144** Credits: 3

### **Ethics in the Human Service Professions**

This is a survey course for the Human Services major. Relationships between client and worker are emphasized, as well as the responsibilities of workers to engage in decision-making reflective of exemplary ethics codes. Prerequisite(s): Must be admitted to the Human Service Associate program (10-520-3). Completion of or currently enrolled in HUMSVC-101.

## **HVAC1 – Air Conditioning Refrigeration and Heating (Department 401)**

### **HVAC1-300** Credits: 4

#### **Basic Refrigeration/System Operations**

Theory and principles of refrigeration, and includes practical lab work. Students perform such skills as tube bending, flaring, soldering and brazing. The pressure-temperature relationship of refrigerants and pressure/enthalpy diagrams are studied to understand the basic refrigeration cycle. Refrigeration system leak checking, evacuation and charging are performed, along with refrigerant recovery in accordance with Environmental Protection Agency regulations.

### **HVAC1-301** Credits: 4

#### **Intro to Refrigeration Service/Applications**

This course is designed to help the student understand types of compressors, refrigerant expansion devices, condensers, evaporators, accessories and system applications. Refrigeration piping design and installation is discussed and practiced. Refrigerant and oil management, recovery, recycling, reclaiming, and retrofit is practiced following proper EPA procedures. Service and troubleshooting of small hermetic, commercial and central air conditioning systems is covered. Prerequisite(s): Complete HVAC1-300.

### **HVAC1-325** Credits: 3

#### **Oil Furnace Service and Maintenance**

This is a lecture/discussion and lab course which focuses on the basics of residential oil fired forced-air heating systems and its use as a commercial fuel. Students will learn such skills as knowing all the components of high-pressure gun oil burners, learning the sequence of operations, understanding wire schematics, basic servicing skills, troubleshooting, and combustion testing.

### **HVAC1-326** Credits: 3

#### **Gas Furnace Servicing and Maintenance**

This is a lecture/discussion and lab course that focuses on the basics of natural gas-fired forced-air heating systems. The course includes covering basic atmospheric furnaces, induced draft and high-efficiency condensing furnaces. Students will learn such skills as knowing the components, learning the sequence of operations, understanding wire schematics, basic servicing skills, troubleshooting and digital combustion testing. Also included is an overview of the use of a sustainable solar energy in residential hydronic heating. Prerequisite(s): Complete HVAC1-325.

### **HVAC1-332** Credits: 2

#### **Math for HVAC Service Technicians**

This math course provides a step-by-step approach to math problems that students will encounter as heating and cooling technicians. This course provides the basic computational and problem-solving skills required for many aspects

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of HVAC industry, and for further study in trades math and in intermediate-level algebra, geometry and trigonometry. Topics include whole numbers, fractions, decimals, proportion, percent, graphs, statistics, measurement and geometry.

### **HVAC1-350** **Credits: 2** **Air Conditioning Principles**

This basic course covers air distribution, heating, filtering and refrigeration as applied to air conditioning for residential, commercial and industrial applications. Calculating heat gains and the use of a psychrometric chart are included.

## **HVAC2 - Air Conditioning Refrigeration and Heating Technology (Department 601)**

### **HVAC2-109** **Credits: 1** **Introduction to the HVAC Industry**

Students are introduced to the career opportunities and responsibilities in the air conditioning, heating and refrigeration industry. This course offers an orientation to the different duties, educational requirements and specialty areas within the HVAC industry.

### **HVAC2-110** **Credits: 3** **Air Conditioning Fundamentals**

This course is a study of the fundamentals of air conditioning, including heating, cooling, humidification, human comfort and psychrometrics. The laboratory will cover the use of measuring instruments during operation of boilers, pumps, furnaces and air handling units.

### **HVAC2-113** **Credits: 3** **Electrical Fundamentals**

This course provides experience with electrical theories, circuits, devices and equipment that may be needed by those who work in the field of heating, air conditioning and refrigeration.

### **HVAC2-114** **Credits: 4** **Electrical Controls and Systems**

The function and basic operating principles of the controls and circuit components are verified as students wire complete heating and cooling systems on panel boards in the lab. Servicing and troubleshooting procedures are also covered. Prerequisite(s): Complete HVAC2-113.

### **HVAC2-115** **Credits: 4** **Refrigeration 1**

Studies and calculations are made of the basic refrigeration cycle using the Mollier diagram. The operation of the major parts is discussed along with the use of service tools such as gages, meters, vacuum pumps and refrigeration recovery. Prerequisite(s): Complete HVAC2-110 and HVAC2-113.

### **HVAC2-116** **Credits: 4** **Refrigeration 2**

Studies and calculations are made of commercial and industrial refrigeration systems, along with the design and selection of equipment. Meters and service tools are used to diagnose and troubleshoot compressors, coolers, ice maker and freezers. Prerequisite(s): Complete HVAC2-115.

### **HVAC2-120** **Credits: 4** **Heating Systems 1**

This lecture and laboratory course on forced-air systems covers the principles of gas and oil combustion units. Also included are large industrial complex designs and their practicability, with emphasis on variable volume, dual duct and multi-type systems. Prerequisite(s): Complete HVAC2-110 and HVAC2-113.

### **HVAC2-121** **Credits: 4** **Heating Systems 2**

This course includes instruction and laboratory work on hydronic hot water systems and steam applications. Students will be able to design systems, estimate load conditions, and size pumps and expansion tanks. Prerequisite(s): Complete HVAC2-120.

### **HVAC2-125** **Credits: 4** **Control Application and Circuits**

This course is designed to give students an understanding of the operation of various types of control devices and how combinations of these devices can be applied and varied to secure the desired conditions in heating and cooling systems. Prerequisite(s): Complete HVAC2-116 and HVAC2-121.

### **HVAC2-126** **Credits: 3** **Air Conditioning Systems**

A practical approach to design, equipment selection and energy conservation for an air conditioning system, with a visit to a commercial building to observe the operation of a complete mechanical and HVAC system with computer operation and monitoring. Prerequisite(s): Complete HVAC2-116 and HVAC2-121.

### **HVAC2-132** **Credits: 4** **Architectural and Mechanical Fundamentals**

Instruction is given in design, application, blueprint reading, symbols and drawings of mechanical systems. Outlays of various heating and cooling systems in relation to architectural buildings are used. Proper mechanical schematics, isometric piping and flow diagrams are discussed and drawn.

### **HVAC2-144** **Credits: 3** **Servicing and Troubleshooting Refrigeration**

Various methods of troubleshooting and servicing of refrigeration and air conditioning systems are studied together with the use of service tools and meters on commercial and industrial equipment. Prerequisite(s): Complete HVAC2-116.

### **HVAC2-146** **Credits: 2** **Digital Energy Management Systems**

Major types of automatic electrical control systems are described and compared. Programs, sensing and control points, signal transmission and processing, and other peripheral equipment that make up a complete building monitoring and control automation system are also explored. Prerequisite(s): Complete HVAC2-114.

### **HVAC2-148** **Credits: 3** **Heat Pumps**

The Heat Pumps course is aimed at the servicing and installation of heat pumps. The curriculum provides instruction on equipment and procedures needed to check the heating and cooling performance of heat pump systems. Calculating heat gains and the use of a psychrometric chart are included in this course. Due to concerns for both comfort and energy conservation, there is a need for technicians who have current training in the installation, troubleshooting and repair of heat pump equipment. Prerequisite(s): Complete HVAC1-300 or HVAC2-115.

### **HVAC2-150** **Credits: 2** **Wiring Diagram Interpretation for HVAC/R**

This course is designed to enhance the student's ability to interpret modern wiring diagrams for HVAC/R. The curriculum provides instruction on the usage, design and interpretation of wiring diagrams such as the schematic, pictorial, installation and hybrid. Instruction will include the interpretation of actual equipment wiring diagrams as well as designing wiring diagrams. Prerequisite(s): Complete HVAC-114 or ELECTY-396 and ELECTY-398.

## **HYDPNU – Hydraulic Pneumatics (Department 439)**

### **HYDPNU-330** **Credits: 5** **Basic Hydraulics/Pneumatics**

Students will be introduced to the basic principles of hydraulics and pneumatics, along with some of the basic components used in each system. This includes their principles of operation and more common problems. Some of the components covered include pumps, compressors, directional control valves, actuators, fluid conditioning devices, pressure control valves, conductors and sealing devices.

### **HYDPNU-336** **Credits: 4** **Fluid Power Circuits**

This course begins with instilling an understanding of hydraulic/pneumatic circuits and their schematic symbols. Building on those skills, students then explore electrically/electronically relay logic circuits and their components. The students build skills through written and hands-on lab assignments designed to simulate real-world systems and the skills to install and troubleshoot them.

### **HYDPNU-338** **Credits: 4** **Mechanical Systems**

This course teaches the fundamentals of mechanical transmission systems and allows for the practice of industry-relevant skills, including how to operate, install, maintain, troubleshoot and design basic mechanical transmission systems using chains, V-belts, spur gears, bearings and couplings. The installation, operation and applications of laser shaft alignment will be taught.

# IH – ITDEV

## IH – Integrative Health (Department 546)

### IH-102 Credits: 3 Intro to Integrative Health

In this course, students will define what health and wellness means. They will also look at the roles that various modalities can play in the creation and maintaining of health in a holistic framework (mind, body and spirit).

### IH-105 Credits: 3 Intro to Wellness Coaching

Explores the art of gathering information about health, lifestyle and motivation through interviewing. Practical application of knowledge is applied to the interpersonal exchange between a wellness coach and client. Completion will prepare students for ACE Health Coach Certification.

### IH-108 Credits: 3 Natural Wellness Concepts

Explores the RN mode approach to health and wellness that builds on the ancient wisdom of our ancestors. Studies what makes us well along with the fundamentals of nutrition, fitness and exercise, as well as stress management. Consider the role of perspective on the healthcare choices consumers make. Prior to acceptance in the Integrative Health program, criminal background check is required.

### IH-112 Credits: 3 Nutrition for Health and Wellness

In this course, students will explore the role of nutrition in supporting health and wellness. The course will build on introductory material in areas of evidence-based nutrition and integrative health. The goal of this course is to develop an understanding of nutrition practices to promote wellness.

### IH-113 Credits: 3 Wellness Marketing and Technology

Explores health and wellness marketing and promotion in a variety of public and private settings. Develops skills in presentation and social media marketing and promotion to enhance the lives of individuals and communities. Students will also learn the fundamentals of telehealth.

### IH-201 Credits: 1 Intro to Eastern Medicine

The basics of the two Eastern medical models, Chinese medicine and Ayurveda, will be explored. Students will learn basic principles that can later be applied to working with clients.

### IH-203 Credits: 3 Theory and Practice of Fitness

Examines the basis of personal training and fitness to include anatomy and physiology of exercise, nutrition, assessment, and training. Builds an academic foundation for careers in the fitness industry while preparing students for the American Council on Exercise (ACE) Personal Trainer Certification.

### IH-208 Credits: 3 Advanced Wellness

Presents a continuation of concepts learned in Natural Wellness Concepts. Students will learn how to address nutritional needs, compare diets, design exercise programs and use stress management techniques.

### IH-215 Credits: 2 Population Health and Wellness

Addresses the incidence and cost of chronic diseases and other modern health issues. Study the four major causes of chronic disease (lack of physical activity, poor nutrition, tobacco use and excessive alcohol consumption). Emphasis is placed on the signs, symptoms, prevention and management of these disorders within communities and society.

### IH-218 Credits: 3 Health Coaching and Interviewing

Explores the practical issues related to wellness consulting including consulting agreements, session documentation, establishing motivational rapport, as well as information sharing and presentation. Students will learn strategies to powerfully lead wellness consultation sessions incorporating industry trends.

### IH-225 Credits: 2 Healthy Aging

Overview of practices to promote healthy aging. This course will address nutrition, physical activity and prevention practices as well as an overview of medications commonly prescribed for the older adult. Emphasis will focus around the “well” elderly population and practices identified to address current aging trends.

### IH-235 Credits: 2 Fitness Testing and Prescription

Apply exercise theory to assess and develop interventional wellness-related exercise programs for individuals and groups. Assess exercise risk factors and implement safety measures to assure client safety.

## INDSGN – Interior Design (Department 304)

### INDSGN-100 Credits: 3 Introduction to Interior Design

Course presents an overview of the field of interior design. Course will cover the principles and elements of design. Pencil and ink sketching techniques will be explored to obtain a comfort level with loose drawing and quick sketches. Shade shadow and color will be introduced as hand-rendering techniques. Students will be introduced to the concept and construction of the interior design presentation boards, both manual and digital methodology.

### INDSGN-102 Credits: 3 Basic Architectural Drawing

This course will introduce students to basic manual and computer-aided drawing for interior design. Students will learn how to properly use equipment and produce two-dimensional drawings.

### INDSGN-104 Credits: 3 Interior Elements of Building Construction

This course will introduce students to basic components of building construction, including structural components and mechanical systems. Construction techniques will be converted and applied to the furniture design process, with emphasis on millwork and custom cabinetry design. Sustainable design and the health and welfare of occupants will be considered throughout.

### INDSGN-106 Credits: 3 Materials and Furniture Design

This course will explore appropriate material and furniture selections and specifications including sustainable solutions. Exploration will include quality construction and design applications used in the furniture industry.

### INDSGN-108 Credits: 3 Residential Studio

This course will explore residential planning guidelines and safety codes. Students will learn the basic design process from programming through design development. An emphasis will be placed on appropriate furniture and material selections and specifications. Housing styles, both aesthetic and functional, will be addressed. Prerequisite(s): Complete INDSGN-102.

### INDSGN-110 Credits: 3 Advanced Architectural Drawing

This course will build on the Basic Architectural Drawing coursework and further develop student skills in both manual and computer-aided drawing techniques for interior design. Computer-aided 3D modeling will also be introduced and explored as a method of communicating design. Prerequisite(s): Complete INDSGN-102 and INDSGN-106 with a grade of C or higher.

### INDSGN-113 Credits: 3 Textiles: Science, Application Design

This course will cover fiber and yarn composition as it relates to woven goods. Students will learn appropriate material specifications per application based on textile, fiber and yarn properties. Emphasis will be placed on upholstery and applied use, as well as textile design, including exploration of warp, weave, pattern and color.

### INDSGN-114 Credits: 3 Color and Light

This course will delve into the theory and practical application of color in interior environments. Students will explore how color can affect the perception of space due to physical, emotional and biological connotations. Emphasis will be placed on proper lighting techniques for true color selection. Students will learn to differentiate lamps and light sources and create lighting and switching plans. Prerequisite(s): Complete INDSGN-100.

### INDSGN-116 Credits: 3 Kitchen and Bathroom Design

This course will cover the methods of functional kitchen and bathroom planning, as well as the



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activities of a professional kitchen and bathroom designer. Emphasis is placed on design techniques that are current with industry standards. NKBA guidelines will be addressed, along with the presentation and planning techniques of industry specific software. Prerequisite(s): Complete INDSGN-110 with a grade of C or higher.

**INDSGN-118** Credits: 3

### Commercial Studio

This course will explore the contract design industry and expose students to basic planning conditions, including planning guides and the ADA. Emphasis will be placed on furniture and material selection and specification. Students will explore industry specific software. Prerequisite(s): Complete INDSGN-110 with a grade of C or higher.

**INDSGN-120** Credits: 1

### Interior Design Internship

This course will explore basic professional business practices, including ethics and standards of the interior design profession. Students will explore various types of design employment and develop a working resume and cover letter. In addition, the student will observe and participate in work experience under the supervision of faculty in the Interior Design program. Prerequisite(s): Complete INDSGN-110 and INTRN-796 with a grade of C or higher.

**INDSGN-122** Credits: 3

### Styles of Furniture and Architecture

This course will explore the evolution of interior design and the applied arts, including art and architecture. Students will consider related political, socioeconomic and demographic influences of each period, from antiquity to contemporary style.

**INDSGN-124** Credits: 3

### Advanced Commercial Studio

Course will continue to establish the important role of code compliance in commercial interiors. Emphasis will be placed on key industry segments of facilities and healthcare design. Advanced design techniques and strategies, such as schedules, legends and reflected ceiling plans, will be covered, as well as an introduction to planning and specifying systems furniture. Students will learn Revit, an industry standard software, as it applies to the interior design process. Prerequisite(s): Complete INDSGN-118 with minimum grade of C or higher.

**INDSGN-128** Credits: 3

### Designer/Client Relationships

This course will focus on presentation selling and marketing strategies of interior design services and solutions. Emphasis is on cultivating and maintaining partnerships with clients and vendors. Students will develop oral, written and graphic presentations for residential and commercial design scenarios.

**INDSGN-131** Credits: 3

### Portfolio Development and Application

This course will prepare students for entry-level job interviews. Emphasis will be on appropriate

use of industry terminology and presentation skills and tools. Students will organize a portfolio of best works and will participate in a series of mock interviews. Prerequisite(s): Complete INDSGN-116 and INDSGN-118.

## INDVTS – Individual Technical Studies (Department 825)

**INDVTS-102** Credits: 3

### Career Assessment and Portfolio Development

This course is the preliminary component in the Individualized Technical Studies degree program. Students will develop a career portfolio that identifies their career goals and enables them to create a formal educational plan to attain their goals. The portfolio will document employment history, educational experiences, and military and community service, and identify the skills and competencies students have acquired related to their career goals. The completed portfolio will be the basis for establishing an Individualized Technical Studies degree path.

## INTP – Interpreter Technician (Department 533)

**INTP-126** Credits: 3

### American Sign Language 1

The intent of this course is to provide the student with a basic understanding of American Sign Language — the form of sign language most commonly used by deaf adults when communicating with each other. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Five hours of participation in Deaf community events are required outside of class time. Students enrolled in programs other than Interpreter Technician may be able to use this course and INTP-127 to satisfy elective requirements.

**INTP-127** Credits: 3

### American Sign Language 2

This course is a continuation of American Sign Language 1 and is designed to further provide students with knowledge of fundamental survival signs. Students also acquire an awareness of the differences between deaf and hearing cultures. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Ten hours of participation in Deaf community events are required outside of class time. Prerequisite(s): Complete INTP-126 with a grade of C or higher or instructor consent.

**INTP-128** Credits: 3

### American Sign Language 3

This course is a continuation of American Sign Language 2. It is designed to build daily conversational skills and to increase cultural awareness and sensitivity. Students will refine grammatical skills and practice sentence types in guided ASL conversations and formal

presentations. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Fifteen hours of participation in Deaf community events are required outside of class time. Prerequisite(s): Complete INTP-127 with a grade of C or higher or instructor consent.

**INTP-129** Credits: 3

### American Sign Language 4

This course is a continuation of American Sign Language 3 and is designed to broaden the topics students are able to discuss in ASL. News events, daily lives and social activities will be discussed and formal presentations will be made. Conversational proficiency is expected by the end of this course. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Twenty hours of participation in Deaf community events are required outside of class time. Prerequisite(s): Complete INTP-128 with a grade of C or higher or instructor consent.

## IT – Information Technology (Department 107)

**IT-107** Credits: 3

### Social Networking and Business

This course is an introduction to social media, communication and collaboration tools utilized professionally in a business environment. Students will learn to set up, use and support these tools. Emphasis will be placed on proper business communication, development of a personal resume and the implementation of a professional person using social media that supports work within the information technology field.

## ITDEV – IT Development (Department 152)

**ITDEV-110** Credits: 3

### Introduction to Object-Oriented Programming

This course introduces the fundamental concepts of programming from an object-oriented perspective. Topics include class design, simple data types, control structures, storage allocation, scope and simple data structures (arrays). Students will develop algorithms to solve programming problems and use debugging techniques to test their solutions. The course emphasizes good software engineering principles while developing fundamental programming skills in the context of a language that supports the object-oriented paradigm. Emphasis will be placed on class design, implementation and problem-solving. MATC strongly recommends that students take this course concurrently with ITDEV-117 Logic and Problem-Solving. Prerequisite(s): Complete ITDEV-117.



# ITDEV – ITSEC

**ITDEV-115** **Credits: 3**

## **Intermediate Object-Oriented Programming**

This course focuses on intermediate object-oriented concepts, such as encapsulation, data hiding, inheritance and polymorphism. Students will be introduced to file I/O, data abstraction, pointers and database access. Emphasis will be on class design, implementation and problem-solving using databases. MATC strongly recommends that students complete ITDEV-110, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete ITDEV-110.

**ITDEV-117** **Credits: 3**

## **Logic and Problem-Solving**

This course explores logical thinking and problem-solving through the lens of mathematical and programming structures. Students will develop abstract thinking and learn to apply logically sound forms of argument to derive new insights from established truths. The curriculum explores mathematical and programming logic structures, providing a comprehensive understanding of their applications within the context of programming principles. MATC recommends concurrent enrollment in ITDEV-110 Introduction to Object-Oriented Programming. Students will enhance their ability to think critically, reason logically and problem-solve with a structured, analytical mindset

**ITDEV-140** **Credits: 3**

## **Programming With Java**

Using the latest Java SE Development Kit, students will learn and apply Java programming language to create both console and graphical user interface applications. Topics explored include data types, decisions, loops, methods, data structures, I/O, exceptions, object-oriented skills, user interfaces and the use of relational databases. Successful completion of ITDEV-110 prior to enrollment in the class is required or instructor's permission. Prerequisite(s): Complete ITDEV-110.

**ITDEV-149** **Credits: 3**

## **Data Reporting**

Introduces database querying and reporting using leading tools and frameworks. Learners will design, create and publish reports that access diverse datasets using a reporting tool. Additional topics include SQL, report distribution, data analysis, data security and ethical handling of sensitive data.

**ITDEV-150** **Credits: 3**

## **Database Management With SQL**

This is a fundamental course in database concepts, design and implementation involving the relational database model. Students will create, query and update relational databases using Structured Query Language (SQL)

**ITDEV-154** **Credits: 3**

## **Data Structures and Programming**

This course focuses on advanced data structures used in programming. Students will solve problems by using advanced data structures

such as trees, queues, stacks, linked lists and heaps. MATC strongly recommends that students complete ITDEV-115, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete ITDEV-121, ITDEV-140 or ITDEV-185.

**ITDEV-160** **Credits: 3**

## **Web Programming With Scripts (JavaScript)**

This course teaches students how to build websites that interact with the user by means of client-side scripts. HTML and CSS techniques are used for page formatting. Programming in JavaScript with jQuery is used to create interactive web pages.

**ITDEV-161** **Credits: 3**

## **Web Programming 1**

This course covers interactive web programming using AJAX, APIs, PHP, MySQL and Angular JS. Students publish their pages to a web server. Prerequisite(s): Complete ITDEV-160.

**ITDEV-162** **Credits: 3**

## **Client/Server and E-Commerce Implementation**

Students will investigate the theory and concepts of client/server implementations with advanced database concepts and practices including the use of both of these technologies in the development of electronic commerce sites. MATC strongly recommends that students complete ITDEV-150 and ITDEV-177, or have the equivalent skills, prior to enrollment in this course.

**ITDEV-164** **Credits: 3**

## **Web Programming 2**

The student will create websites that use more advanced properties of the ASP.NET tools used in ITDEV-162. The student will learn how to deploy and set up websites using the Internet Information Server. Advanced material in PHP will also be covered. Prerequisite(s): Complete ITDEV-161.

**ITDEV-177** **Credits: 3**

## **Systems Analysis and Design**

This course will teach techniques and approaches to develop new software systems efficiently and effectively. It will introduce the phases that a project must undergo from inception to completion as well as the various methodologies that can be employed to properly manage a project. It will also identify the skills and team members required to successfully develop and launch the new system. Prerequisite(s): Complete ITDEV-150.

**ITDEV-181** **Credits: 3**

## **Mobile Application Development**

Students will learn how to create applications for mobile devices, expanding upon concepts presented in ITDEV-140 Programming with Java. Topics include XML, widgets, lists, menus, file and database access as well as communicating with the internet. Prerequisite(s): Complete ITDEV-140.

**ITDEV-182** **Credits: 3**

## **Hybrid Mobile App Development**

This course continues to focus on Android mobile technologies introduced in ITDEV-181. Students will create a mobile app from the

conceptual idea to publishing on the Google Play store. They will design, using an appropriate design pattern, code, and publish the mobile app. Advanced mobile technologies such as multi-threading, accessibility, localization, camera, Google maps and cloud-base services will be explored. Prerequisite(s): Complete ITDEV-181.

**ITDEV-184** **Credits: 3**

## **iPhone and iOS Mobile App Development**

Students will learn the basics of the iPhone SKD including user interface design, multi-view applications, table views, navigation controllers, data persistence, drawing, taps and touches, using libraries and localization. Students will develop several basic iPhone applications that provide the foundations of developing more advanced applications. Students will learn Objective-C and Swift programming languages while creating applications for Mac OS interfaces. MATC strongly recommends that students complete ITDEV-185 or have prior Mac OS experience before enrolling in this course.

**ITDEV-185** **Credits: 3**

## **Advanced OO Programming**

This course is the third of a four-course sequence focusing on the object-oriented programming paradigm. The focus of this course will be the C programming languages (C, C++ and Objective-C). Students see the similarities and differences of popular procedural and OOP languages while solving problems. Emphasis is on algorithms, data structure and software engineering. Topics include header files, pointer data types, encapsulation, abstraction, inheritance and polymorphism as well as introduction to design patterns. Prerequisite(s): Complete ITDEV-115.

## **ITNET – IT Networking (Department 150)**

**ITNET-101** **Credits: 3**

### **Network Communications (Network+)**

Network Communications provides an introduction to networking technologies and provides good background material for students interested in preparing for CompTIA's broad-based, vendor-independent networking certification exam, Network+. This course covers a wide range of material about networking such as LAN components, OSI model and standards organizations, transmission media, topologies, protocols (such as TCP/IP), interconnecting devices, wide area networks and security. Through some hands-on exercises, demonstration and discussion, students will develop an understanding of what is involved in basic network design, network management, security and troubleshooting.

**ITNET-110** **Credits: 3**

### **Managing Windows Desktop (Client) Operating System**

This course provides preparation for the Microsoft 365 Certified: Modern Desktop Administrator Associate certification (Exams MD100 Windows 10 and MD-101 Managing

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

Modern Desktops). Students are introduced to the Microsoft Windows 10 operating system through lectures, demonstrations, discussions and hands-on lab activities. Topics include installation, configuration, hardware and application management, troubleshooting, networking, and securing Windows 10.

### **ITNET-111 Credits: 3**

#### **Microsoft Server Administration 2**

This course provides certification exam preparation for Windows Server 2016 (70-742). Topics include installation, configuration, management and maintenance of Active Directory Domain Services (ADDS); management of group policies; and various other Active Directory and server services. Through discussions, demonstrations and hands-on labs, ITNET-111 advances the content presented in ITNET-110 and ITNET-112. MATC strongly recommends that students complete ITNET-112, or have equivalent skills, prior to enrollment of this course.

### **ITNET-112 Credits: 3**

#### **Microsoft Server Administration 1**

This course provides certification exam preparation for Windows Server 2016 (70-740). Topics include server installation, storage, configuration and management; file and share access; print and document services; Active Directory; Group Policy; DNS; DHCP; and various OS features available in Windows Server 2016. Through discussions, demonstrations and hands-on labs, ITNET-112 advances the content presented in ITNET-110. MATC strongly recommends that students complete ITNET-110, or have equivalent skills, prior to enrollment of this course.

### **ITNET-131 Credits: 3**

#### **Introduction to Networks (Cisco 1)**

This is the first of three classes designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. Instruction includes networking, networking terminology and protocols, network standards, LANS, WANS, OSI models, cabling, IP addressing, and network standards. Students who complete all four courses will be prepared to take the Cisco Certified Networking Associate (CCNA) exam as well as the CompTIA Network+ exam at MATC's VUE test center.

### **ITNET-132 Credits: 3**

#### **Routing and Switching Essentials (Cisco 2)**

This is the second of three classes designed to provide students with classroom and laboratory experience in networking technology. Instruction includes Ethernet, TCP/IP, EIGRP, OSPF and the Cisco IOS. Emphasis is placed on router and switch configuration. MATC strongly recommends that students complete ITNET-131 or have the equivalent skills prior to enrollment in this course. Prerequisite(s): Complete ITNET-131.

### **ITNET-133 Credits: 3**

#### **Scaling Networks (Cisco 3)**

This is the third of three classes designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. A task analysis was used in the development of the content standards. The focus of this course continues with objectives from the CCNA exam. Subjects include VLSM, EIGRP, OSPF, Ethernet Switching, VLANs and Rapid Spanning Tree Protocol (STP). Prerequisite(s): Complete ITNET-132.

### **ITNET-154 Credits: 3**

#### **Scripting for Network Administrators**

Successful network administrators use scripting languages to automate the configuration of clients, servers and cloud environments. Students will learn about the Python and PowerShell scripting languages. Python will be used to learn the fundamentals of variables, mathematical operators, logical operators, conditionals, loops, functions and error handling. PowerShell will be used to learn the administration and automation of Windows servers and clients. Topics include scripting, pipelines, formatting, variables, remote PowerShell, data types, looping, comparison operators, and how to run/edit scripts. Students should complete ITNET-112, or have equivalent skills, prior to enrolling.

### **ITNET-157 Credits: 3**

#### **Virtualization Technologies**

This hands-on training course explores installation, configuration and management of VMware vSphere, which consists of VMware ESXi/ESX and VMware vCenter Server. Students are introduced to virtualization and storage management concepts using VMware server virtualization products. This course is required to sit for the VMware Certified Professional (VCP) examination. Students should be concurrently enrolled in (or have completed) ITNET-111 and ITNET-134 prior to taking this course.

### **ITNET-159 Credits: 3**

#### **Cloud Infrastructure Services**

Cloud Infrastructure Services is an "open" course focused on virtualization and the technology concepts and principles required to build a cloud infrastructure. This vendor-neutral class is applicable to all IT professionals whose responsibilities are expanding across all technology domains including servers, storage, networking and applications.

### **ITNET-161 Credits: 2**

#### **Linux Overview**

This course introduces the basics of Linux operating systems. Students learn how to install, configure and use Linux. The main emphasis is on the Linux shell commands and simple shell scripts.

### **ITNET-198 Credits: 1**

#### **Network Specialist Internship**

Students enrolled in this course will either complete an internship with real-world work experience or undertake a networking capstone project. The internship requires students to secure an instructor-approved IT position and work under the guidance of a manager or coordinator. The networking capstone project involves integrating their IT knowledge and skills, reflecting on their work throughout the program, articulating their thoughts in writing, demonstrating core abilities, and showcasing their overall program comprehension. MATC strongly recommends that students complete or enroll in ITNET-133, or possess equivalent skills, before enrolling in this course. Prerequisite(s): Complete INTRN-796 with a grade of C or higher.

### **ITNET-199 Credits: 2**

#### **Integrated Project – Network Specialist**

The Integrated Project course is a capstone project that reflects the student's culminating experience in their program. In this course, students integrate their knowledge and skills in IT, reflect upon the work they have produced throughout their program, put their thoughts about their work into writing, demonstrate core ability skills through the implementation, demonstration and documentation of capstone project, and display overall comprehension of their program. MATC strongly recommends that students complete or enroll in ITNET-198, or have the equivalent skills, prior to enrolling in this course.

## **ITSEC – IT Information Security (Department 150)**

### **ITSEC-114 Credits: 3**

#### **Information Security Principles**

This course is designed to give students a broad knowledge of information security while addressing the five phases of security: inspection, protection, detection, reaction and reflection. Students learn to analyze the most critical risks and threats, define an information security strategy and architecture, and plan for and respond to intruders. The 10 domains of the CISSP certification and Windows workstation security are covered. Students in online sections of this course have access to a virtual server to complete the required lab work.

### **ITSEC-122 Credits: 3**

#### **Web/Application Security**

This course is designed to educate students about the security issues of the web, web browser and web services. In particular, students will learn about the client as well as server-side security measures. At course completion, students will be able to define, design and implement a secure website as well as establish an end-to-end secure web link between a client and server. Topics such as SSL, open SSL and CGI Security are covered. MATC strongly recommends that students complete ITSEC-124, or have the equivalent skills, prior to enrollment in this course.

# ITSEC – ITSUP

## **ITSEC-124 Credits: 3**

### **Network Security (Security+)**

Students will focus on the fundamentals and implementation of network security including secure access methods and vulnerabilities in network protocols, operating systems and network applications. Students will use techniques and tools for developing secure infrastructure. MATC strongly recommends that students complete ITNET-101, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-126 Credits: 3**

### **Computer Forensics**

This course familiarizes the student with methods of properly conducting a computer forensics investigation, beginning with a discussion of ethics. The goal is to conduct a structured investigation to determine exactly what happened, and who was responsible, and to perform the investigation in such a way that the results are useful in a criminal proceeding. Students will practice how to collect and analyze the digital evidence left behind at a crime scene. This course maps to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. MATC strongly recommends that students complete ITSUP-102, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-136 Credits: 3**

### **Unix/Linux Administration and Security**

Unix/Linux server hardening methods and tools are covered in this course. In addition, the security tools and applications inside Unix/Linux are taught. Particularly, students will learn how to protect password files, monitor log files, use port scanners, network scanners, traceroute and ping. Additional topics include secure remote connections such as SSH. MATC strongly recommends that students complete ITSEC-124 and ITNET-161, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-145 Credits: 3**

### **Perimeter Security**

This course covers advanced router configuration, advanced firewall configuration and management, VPN solutions, configuration and management of IDS/IPS, log monitoring, consolidation and reporting. Designing secure network architectures is also covered. Labs utilize a variety of equipment and software from a number of different vendors. VPN solutions, configuration and management of IDS/IPS, log monitoring, consolidation, and reporting. Designing secure network architectures is also covered. Labs utilize a variety of equipment and software from a number of different vendors. MATC strongly recommends that students complete ITSEC-140, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-146 Credits: 3**

### **Security Measures and Intrusion Detection**

This course is concerned with the collection of events from audit trails, network monitoring systems and intrusion detection systems as well

as developing a system to provide early warning of information attack. The class teaches students how to identify, exploit and secure well-known and little-known vulnerabilities in Microsoft Windows and UNIX/Linux operating systems. Moreover, it explores common weaknesses in router and firewall installations, teaching the methods that are used to circumvent traditional and “hardened” security filters or firewalls. This core technology area is also concerned with fusion of data from multiple sensors to form a real-time picture of the Information Assurance battle space. Protective measures and Incident Response Checklist are covered in this course. MATC strongly recommends that students complete ITSEC-135 or ITSEC-136, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-148 Credits: 3**

### **Securing Wireless Devices and Networks**

Students learn wireless network fundamentals and physical layer standards to build and secure WLAN; to install, configure and manage Cisco Air connect and 3Com air Connect security and network security settings; and troubleshooting. Devices such as PDAs, wireless cameras and other cutting-edge technologies will be explored. MATC strongly recommends that students complete ITSEC-124, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-151 Credits: 3**

### **IT – Auditing**

In this course, all six domains of the Certified Information Systems Auditor (CISA) exam are covered, including the knowledge and technical concepts as specified by CISA certification. These domains include Information System Auditing Process, IT Governance, System and Infrastructure Lifecycle management, IT Service Delivery and Support, Protection of Information Assets, Business Continuity and Disaster Recovery. MATC strongly recommends that students complete ITSEC-114, or have the equivalent skills, prior to enrollment in this course.

## **ITSEC-152 Credits: 3**

### **Information Security Risk Management**

This course will introduce the student to information security risk management frameworks, based on internationally accepted standards from the National Institute of Standards and Technology (NIST), the International Organization for Standardization (ISO), and others. Students will become familiar with the basic aspects of the various standards, and will practice their use in measuring risks related to security, regulatory compliance and audits. At course completion students will have an understanding of risk management strategies and practices, as well as some basic skill in practical application of those strategies.

## **ITSEC-156 Credits: 3**

### **Mobile Devices Forensics**

In this course, students will learn the history and evolution of mobile forensics, understand the cellular network and components, and learn the legal aspects in obtaining cellular evidence.

Also, the class will cover imaging mobile devices, understanding cellular records and their use in cellular evidence. Students will learn the ability to utilize forensics tools to conduct analysis of mobile devices. In addition to being able to create an evidence case report.

## **ITSEC-158 Credits: 3**

### **Cloud Security**

Cloud Security is an “open” course focused on virtualization in the cloud and the technology concepts and principles required to build and secure a cloud infrastructure. This vendor-neutral class is applicable to all IT security professionals whose responsibilities are expanding across all technology domains, including the setup and security of servers, storage, networking and applications in the cloud.

## **ITSEC-166 Credits: 3**

### **Advanced Forensics**

This course will address advanced topics in computer forensics, mobile forensics, network forensics and incident response. Topics include data hiding, encryption, advanced Windows registry, steganography and password recovery. Prerequisite(s): Complete ITSEC-126.

## **ITSEC-176 Credits: 3**

### **Malware Forensics**

This course will start from malware basics and gradually teach the learners how to perform a malware forensic investigation as a part of incident response. In addition, an introduction to reverse-engineering malware will be provided. Since familiarity with programming is necessary for this course, an introduction to programming using Python and/or C is covered at the beginning of the course. In addition, general familiarity with networking and TCP/IP, operating system internals (Windows and Unix), computer security, digital forensics, and incident response is very essential for this course.

## **ITSEC-191 Credits: 1**

### **Information Systems Security Internship 2**

Students will explore the field of professional computing, information technology and information systems security by working in a real work environment and applying the skills gained from courses previously taken in the information systems security program. The practical work experience will be gained under the supervision of an information technology professional supervisor in day-to-day, on-site technical work. Prerequisite(s): Complete INTRN-796 with a grade of C or higher.

## **ITSEC-194 Credits: 1**

### **Security Project Implementation**

This course helps students gain in-demand skills. The course emphasizes real and hands-on experience in different areas of security such as security assessment, virtualization, log file consolidation, design and installation of security tools such as firewalls, IDSs, VPNs, and other existing or new technologies.



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

### ITSUP – IT Computer Support (Department 154)

#### ITSUP-101 Credits: 3 Computer Information Systems Fundamentals

Students will learn the concepts and terms to enable them to better understand the role of information technology, careers for computer professionals, basics in computer hardware, software and networking as well as the internet in business and society. A brief overview of the history of information technology, as well as strategic future direction, is discussed. Topics include technology trends that affect computing and everyday life, such as concerns for data security, personal privacy, online safety, controversy over digital rights management, open source software, smartphone and tablet devices, and more. In addition, coverage of the latest release of Microsoft Windows and Office will introduce you to exciting new features of next-generation consumer and enterprise software. The course is a combination of lecture discussion and hands-on lab assignments.

#### ITSUP-102 Credits: 3 CompTIA A+ Essentials and IT Technician

This course prepares students for the CompTIA A+ Certification exam. Students will work on hands-on labs that build and configure computers; replace parts; install and configure operating systems; and troubleshoot hardware, software, networking and security problems. Additional topics and hands-on activities include multi-threading, UEFI, disk and memory management, virtualization, mobile devices, laptops, OS software updates and optimization, managing device drivers, and virus protection.

#### ITSUP-106 Credits: 1 Linux Support

Students will acquire a practical understanding of how Linux works. This course will include Linux OS fundamentals, basic commands and file system management as it applies to technical support. Students will work on hands-on labs that will use the GUI interface as well as command line tools.

#### ITSUP-109 Credits: 3 Microsoft Office for IT Professionals

This course prepares students to effectively utilize Microsoft Office in IT organization. Students will learn features of the latest versions of Microsoft Excel, Microsoft Word, Microsoft Access, OneNote and PowerPoint through hands-on labs, comprehensive projects and business scenarios.

#### ITSUP-111 Credits: 3 CompTIA A+ Software Support

This course prepares students for the CompTIA A+ Software Certification exam. Students will work on hands-on labs to install and configure operating systems including Windows, iOS, Android, Apple OS X and Linux. They will also learn security, the fundamentals of cloud computing and operational procedures.

#### ITSUP-140 Credits: 3 Supp Ctr Analyst (HDI-SCA, HDI-DST, ITIL)

This course prepares students for HDI-SCA (Help Desk Institute Support Center Analyst), HDI-DST (Desktop Support Technician) and ITIL Foundation certifications by teaching how to provide frontline support for customers. The course focuses on strategies for effective customer service with an emphasis on problem-solving and troubleshooting skills, call-handling procedures, incident management and call tracking applications. Topics such as active listening skills and effective communication strategies will be covered as well as strategies for improving customer interactions.

#### ITSUP-150 Credits: 3 Mobile Device Repair and Maintenance

This course provides students with expert mobile device repair knowledge and advanced repair skills. It incorporates both classroom education and hands-on, real-world repair scenarios, where students will gain immediate knowledge to service and repair smartphones, cellular phones and hand-held devices. Students learn how to disassemble and repair iOS, Android and Windows Mobile devices. Students also learn how to troubleshoot phone issues, resolve network communication issues on the device, replace batteries, LCD, broken lens, cameras and touch screens. Course also teaches students the concepts of data transfer and recovery, jailbreaking, and cell phone locking and unlocking.

#### ITSUP-152 Credits: 3 MacOS Support Essentials

This course provides an in-depth exploration of troubleshooting of the MacOS Operating system and prepares students for Apple Certified Support Professional (ACSP) Certification. This course will teach students the best methods for effectively supporting users of MacOS. Course covers labs on installation, setup and configuration, MacOS Recovery, software updates, file system, FileVault, permissions and sharing, data management, application and processes, network configuration, network services, peripherals, printing, and system startup. The course is a combination of lecture and hands-on exercises that provides practical, real-world experience.

#### ITSUP-153 Credits: 3 Mobile Device Administration

This course prepares students for managing mobile devices in the enterprise, including smartphones, tablets and laptops. Students will gain skills required to understand and research capabilities of mobile devices and features of over-the-air technology. Students will learn device administration for the iOS and Android mobile platforms. Students will also learn how to deploy, integrate, support and manage a mobile environment ensuring proper security measures are implemented for devices while maintaining usability. This course is a combination of lectures and hands-on exercises with physical mobile devices, virtual mobile operating systems and mobile device management (MDM) services.

#### ITSUP-155 Credits: 3 IT Career Skills

This course prepares students for careers in information technology. Students learn about a variety of positions available in IT computer support, different career paths in IT, how to prepare a quality resume, search for a job and apply for a position, go through the interview process, complete background check, and secure employment. Students participate in mock interviews and learn how to use social media to increase their chances to get hired.

#### ITSUP-177 Credits: 3 Intro to IT Projects, Teamwork and Self-Management

This course prepares students for teamwork and working on IT projects. Students learn about a variety of project concepts and how to work with colleagues, team members and stakeholders. Concept of self-management will be introduced to help students organize their work and improve their soft skills. Students will learn the concept of “return on investment” and “value delivery” for the organization. Students participate in group exercises, create and execute project plans, and work together on team activities.

#### ITSUP-197 Credits: 3 Business Data Analytics

Through labs and hands-on exercises, students will learn about business data analytics. Students will learn to report, inspect, clean, transform and model business data with the goal of discovering useful information, suggesting conclusions and supporting organizational decision-making.

#### ITSUP-198 Credits: 1 Computer Support Specialist Internship

This internship course directs students to obtain an IT internship at local area employers based on the jobs available. Students will perform required IT computer specialist support activities, configure and install new software, troubleshoot, and solve issues with hardware, OS and applications, networks, and virtual setups and configurations. Prerequisite(s): Complete INTRN-796 with a grade of C or higher.

#### ITSUP-199 Credits: 1 Integrated Project – Computer Support Specialist

The Integrated Project course is a capstone project that reflects student’s culminating experience in the IT Computer Support Specialist program. In this course, students integrate their knowledge and skills in IT by working on the final project, demonstrating core ability skills and displaying overall comprehension of the discipline.



# LDRSHP – MACHTL

## LDRSHP – Leadership Development (Department 196)

**LDRSHP-164** Credits: 3

### Personal Leadership Strategies

In this course, students apply the skills and tools necessary to deal with time management, stress and related challenges to leaders. Each student demonstrates the application of time management techniques, personal planning, continuous learning, valuing rights and responsibilities of others, effective communication, assertiveness, and dealing effectively with stress.

**LDRSHP-168** Credits: 3

### Organizational Development

Learners apply skills and tools necessary to deal with organizational behavior and change. Learners apply intervention strategies to deal with restructuring globalization, team building, conflict resolution and process consultation. Learners analyze how an organization's goals, decision-making, performance management and planning impact goal attainment, business outcomes, organizational structure, job design and employee participation. Learners evaluate the importance of culture, emotional intelligence and conflict management.

**LDRSHP-189** Credits: 3

### Team Building and Problem-Solving

In this course, students apply the skills and tools necessary to facilitate problem-solving in a team environment. Each student demonstrates the application of the benefits and challenges of group work, including necessary roles in a team, stages of team development, different approaches to problem-solving, consensus, a systematic process of problem definition, data acquisition, analysis, developing alternative solutions, solution implementation, and evaluation.

**LDRSHP-190** Credits: 3

### Leadership Development

In this course, students apply the skills and tools necessary to fulfill their role as a modern leader. Each student demonstrates the application of evaluating leadership effectiveness and organization requirements, including individual and group motivation strategies, implementing the mission and goals, ethical behavior, personal leadership style and adaptation, impacts of power, facilitating employee development, coaching, managing change, and effective conflict resolution.

**LDRSHP-191** Credits: 3

### Supervision

In this course, students apply the skills and tools necessary to perform the functions of a frontline leader. Each student demonstrates the application of strategies and transition to a contemporary supervisory role including day-to-day operations, analysis, delegation, controlling, staffing, leadership, problem-solving, team skills, motivation and training.

**LDRSHP-195** Credits: 3

### Communication Strategies for Leaders

Effective leadership is built on strong communication skills. This course explores the essential communication strategies leaders need to inspire, influence and drive organizational success. Students will examine the principles of verbal, nonverbal and written communication, learning how to craft messages that resonate with diverse audiences. The course emphasizes active listening, navigating difficult conversations, providing constructive feedback and adaptability in leadership communication. By the end of the course, students will be equipped with the skills to communicate with confidence, clarity and impact, empowering them to lead effectively in a variety of organizational settings.

## LOGMGT – Logistics Transportation Materials Management (Development 182)

**LOGMGT-105** Credits: 3

### Enterprise Resource Planning

This course will provide the fundamentals of enterprise resource planning (ERP) systems concepts and the importance of integrated information systems in an organization. The focus of this course is on illustrating procurement, production and sales business processes using ERP software. Students will receive application experience utilizing an SAP (Systems, Applications and Products) database.

**LOGMGT-106** Credits: 3

### e-Commerce Logistics

The continued double-digit growth of e-commerce is not solely a matter of retailers readjusting and getting smarter about their products and last-mile shipping strategies. In fact, the impact of digital commerce and the subsequent challenge of omni-channel fulfillment cuts across every part of the organization. This course will observe supply chain management through the lens of retail and e-commerce. Students will investigate emerging logistics strategies, tools and technologies that enable order fulfillment in the rapidly evolving e-commerce space. Because satisfied customers lead to return visits and increased sales, the fundamental lesson of this course will reveal how choices at the beginning of the retail value chain affect service aspects at the end of the logistics chain.

**LOGMGT-107** Credits: 3

### Blueprints for Career Success

Blueprints for Career Success in Supply Chain Management is a dynamic course offering internships, specialized career training, networking opportunities and social media proficiency. Designed to integrate academic knowledge with practical industry experience, it equips students for success in the supply chain sector. Students will focus on real-world skills, employability and building industry connections, setting the stage for a thriving career in this essential field.

**LOGMGT-144** Credits: 3

### Production Planning and Inventory Control

This course focuses on inventory and planning concerns. The planning side of operations is examined, including master scheduling, requirements planning, capacity management, shop floor control and forecasting.

**LOGMGT-146** Credits: 3

### Operations Management

This course is designed to acquaint students with the specialized vocabulary and problems encountered in manufacturing management. Tools and techniques for solving production process problems are presented with an emphasis on quality and productivity.

**LOGMGT-164** Credits: 3

### Supply Chain Management

This course provides the student with an overview to supply chain management. Topics covered in the course include transportation, distribution, customer relationship management, supplier management, forecasting, Just In Time, inventory management, Total Quality Management and facilities management.

**LOGMGT-170** Credits: 3

### Procurement

This course includes an analysis of the purchasing process, a review of purchasing activities and identification of purchasing problems in modern organizations. Attention is given to the role of purchasing in the organization, supplier selection, negotiation, sourcing issues, inventory management and quality concerns.

**LOGMGT-184** Credits: 3

### International Logistics

In the management of international logistics, both import and export are studied. Attention is given to the data necessary for accurate preparation of export documentations. Management and selection of international transportation modes and associated regulations are explained.

**LOGMGT-190** Credits: 3

### Logistics

This course provides an understanding of the key logistics concepts and the issues affecting the movement and storage of goods. Particular emphasis will be placed on providing a broad and general exposure to business logistics. This will include the development of a basic understanding of the concepts and techniques important to analyzing business logistics problems. The course will also examine how the various logistics activities are related to each other and other functional areas within an organization. Finally, the course will introduce management and control techniques that are critical in the area of logistics. The course is designed for students who have had little or no previous coursework or professional experience in logistics.

**LOGMGT-191** Credits: 3

### Integrated Supply Chain Management Capstone

This course will provide the student with hands-on, cumulative application experience. Students will use the knowledge gained in the previous six

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

courses within the Supply Chain Management associate degree program to develop operational strategies for business applications. Simulations and industry projects will be utilized in this capstone course. Prerequisite(s): Complete LOGMGT-164, LOGMGT-146, LOGMGT-144, LOGMGT-170, LOGMGT-190, LOGMGT-184 and LOGMGT-105.

### **MACHTL – Machine Tool (Department 420)**

#### **MACHTL-300 Credits: 3 Engine Lathe 1 (Turning)**

This course offers basic instruction for turning operations on an engine lathe. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking Skills. Instruction includes using basic hand tools, layout, performing bench work, part inspection, safety and job organization. Detailed information will be given on lathe setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate an engine lathe and produce parts that require basic turning operations in a chuck as well as basic turning between centers.

#### **MACHTL-301 Credits: 3 Engine Lathe 2 (Turning)**

This course offers more advanced instruction for performing chucking operations on an engine lathe. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking Skills. Safety, part inspection, shop and job organization, job planning, and proper turning procedures will be presented. The student will learn to set up and operate an engine lathe and produce parts that are more advanced. Instruction will also be provided for using basic hand tools, performing bench work and off hand grinding on a pedestal grinder. Prerequisite(s): Complete MACHTL-300.

#### **MACHTL-304 Credits: 1 Introduction to CNC Programming**

Introduction to CNC Programming prepares the student to write basic programs for CNC turning and CNC vertical milling machines. Application of the Cartesian coordinates system is taught along with programming format. The CNC vertical milling center students will write basic programs using linear and rapid moves, circular interpolation, geometry offsets and a variety of canned cycles. CNC turning portion of the course will require the student to write programs that include linear and rapid moves, circular interpolation with tool nose radius compensation, canned cycles, and threading cycles. Prerequisite(s): Completion of or currently enrolled in MACHTL-320 and MACHTL-322.

#### **MACHTL-309 Credits: 3 Manual Vertical Milling Machine 1**

This course offers basic instruction for machine operations on a manual vertical milling machine. Instruction is based on Machining Level 1 skill

standards established by the National Institute for Metalworking Skills. Items of instruction will include using basic hand tools, part layout, part inspection, bench work, safety and job organization. Detailed information will be given on milling machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate a manual vertical milling machine, producing square parts with drilled and tapped holes. Students will also learn how to set up and operate a vertical band saw and a cut-off saw. Additionally, students will perform off hand grinding on a pedestal grinder.

#### **MACHTL-310 Credits: 3 Manual Vertical Milling Machine 2**

This course offers more advanced instruction for machining operations on a manual vertical milling machine. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking Skills. Safety, part inspection, shop and job organization, job planning, and proper machining procedures will be presented. Detailed information will be given on milling machine setup and operation to produce parts requiring slots, steps, bored and reamed holes. In addition to working on the manual vertical milling machine, the student will also learn how to set up and perform multiple operations on a drill press. Prerequisite(s): Complete MACHTL-309.

#### **MACHTL-320 Credits: 4 Introduction to CNC Turning Centers**

Students are introduced to basic CNC turning setup and operation. The course begins with the student loading and running existing programs. After becoming familiar with the controls and the setup process, the student begins to edit existing programs. By the end of the course, the student produces parts to print specifications from programs developed on their own. Prerequisite(s): Complete MACHTL-301.

#### **MACHTL-322 Credits: 4 Introduction to CNC Vertical Machining Centers**

Students are introduced to basic CNC milling machine setup and operation. The course begins with the student loading and running existing programs. After becoming familiar with the controls and the setup process, the student begins to edit existing programs. By the end of the course, the student produces parts to print specifications from programs developed on their own. Prerequisite(s): Complete MACHTL-310.

#### **MACHTL-325 Credits: 4 Surface Grinding**

This course is designed to teach the student the basics of surface grinding on a manual surface grinder. General maintenance of the machine will be covered along with wheel mounting, chuck preparation and work holding. The student will learn a variety of methods for squaring blocks. Slot grinding and angular grinding will also be covered.

#### **MACHTL-346 Credits: 2**

##### **Machine Shop for Related Trades**

Instruction in this course is based upon selected operations performed on the bench, drill press, engine lathe, milling machine and pedestal grinder.

#### **MACHTL-347 Credits: 3**

##### **Single Spindle Automatic Screw Machine 1**

This course offers instruction on the basic operations on an automatic screw machine. Instruction is based on Machining Level 2 skill standards established by the National Institute for Metalworking Skills (NIMS). Items of instruction will include using basic tools, tool sharpening, machine layout, part inspection, safety and job organization. Detailed information will be given on the screw machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate an automatic screw machine and produce parts that require basic operations.

#### **MACHTL-348 Credits: 3**

##### **Single Spindle Automatic Screw Machine 2**

This course offers more advanced instruction on the operations of an automatic screw machine. Instruction is based on Machining Level 2 skill standards established by the National Institute for Metalworking Skills (NIMS). Instruction will reinforce tool grinding, part inspection, safety and job organization. Detailed information will be given on the setup of screw machine tooling used for box milling, knurling internal and external threading, and operational guidelines. Upon completion of the course, the student will be able to set up and operate an automatic screw machine and produce parts that require more operations. Prerequisite(s): Complete MACHTL-347.

#### **MACHTL-360 Credits: 1**

##### **Metrology**

Students are introduced to inspection terminology, measuring instruments, instrument handling and measuring techniques. Along with hands-on use of each measuring instrument, the course provides the student with criteria for proper instrument selection based on part print requirements.

#### **MACHTL-361 Credits: 3**

##### **Multiple Spindle Automatic Screw Machine 1**

This course offers instruction on the basic operations of a multiple spindle automatic screw machine. Instruction is based on Machining Level 2 skill standards established by the National Institute for Metalworking Skills (NIMS). Instruction will include using basic tools, tool sharpening, machine layout, part inspection, safety and job organization. Detailed information will be given on the basic screw machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate a multiple spindle automatic screw machine and produce parts that require basic operations. Prerequisite(s): Complete MACHTL-348.

# MACHTL – MATH

## **MACHTL-362** **Credits: 3**

### **Multiple Spindle Automatic Screw Machine 2**

Instruction is expanded to more operations on a multiple spindle automatic screw machine. Instruction will reinforce tool grinding, part inspection, safety and job organization. Detailed information will be given on the multiple spindle screw machine tooling used for turning, reaming and recessing. The student will be introduced to the steps for calculating a layout for the machine. Upon completion of the course, the student will be able to set up and operate a multiple spindle automatic screw machine and produce parts that require advance operations. Prerequisite(s): Complete MACHTL-361.

## **MACHTL-367** **Credits: 1**

### **Machine Tool Technology**

This course is designed to teach the student safety, terminology and theory for the basic machine tools found in the common machine shop. Machine types, components, operations, tooling, machining applications and work holding are discussed. The student will also learn about different materials, machine ability and cutting tool selection.

## **MACHTL-371** **Credits: 4**

### **CNC Swiss Turning Center 1**

This course offers instruction on the basic operations and setup of a CNC automatic turning machine. Instruction will include basic setup, use of the CNC control, tools, machine layout, part inspection, safety and job organization. Detailed information will be given on the basic machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate a CNC automatic turning machine and produce parts that require basic operations such as turning, drilling and reaming.

## **MACHTL-372** **Credits: 4**

### **CNC Swiss Turning Center 2**

This course offers instruction on the more complex operations on a CNC automatic turning machine. Items of instruction will include editing of the CNC program, calculations for the CNC program and more complex machining operations on the CNC automatic turning machine. Upon completion of the course, the student will be able to edit a CNC program, set up and operate a CNC automatic turning machine, and produce parts that require complex operations such as boring, grooving and canned cycles. Prerequisite(s): Complete MACHTL-371.

## **MACHTL-373** **Credits: 4**

### **CNC Swiss Turning Center 3**

This course offers instruction on the more complex operations on a CNC automatic turning machine. Items of instruction will include creating a CNC program, calculations for the CNC program and more complex machining operations on the CNC automatic turning machine. Upon completion of the course, the student will be able to edit a CNC program, transfer the program, and set up and operate a CNC automatic turning machine using

complex operations such as external and internal threading and tapping. Prerequisite(s): Complete MACHTL-372.

## **MACHTL-384** **Credits: 1**

### **Machine Trades Mathematics 1**

This course provides students with the necessary mathematical foundation for problem-solving in the metalworking trades. A review of the basic principles of arithmetic and algebra is offered.

## **MACHTL-385** **Credits: 1**

### **Machine Trades Mathematics 2**

This course presents an introduction to geometric methods applicable to the machine shop. It also provides students with an opportunity to analyze and solve a variety of practical machine trade applications and problems. Prerequisite(s): Complete MACHTL-384.

## **MACHTL-386** **Credits: 1**

### **Machine Trades Mathematics 3**

This course presents an introduction to the trigonometric solution of shop problems. The basic right triangle functions and oblique triangle laws of sine and cosine are used to solve problems. Prerequisite(s): Complete MACHTL-385.

## **MACHTL-387** **Credits: 1**

### **Machine Trades Mathematics 4**

The application of trigonometry in the solution of more complex shop problems is presented. Included are problems with tapers, sine bar, dovetails, correlate distances, hole locations, measurement of screw threads, and measurement using rods and balls. Prerequisite(s): Complete MACHTL-386.

## **MACHTL-391** **Credits: 1**

### **Quality Control**

This course is a continuation of MACHTL-360 Metrology. The level of precision is increased as more precise instruments and methods of inspection are taught. Gage blocks, the optical comparator, dial bore gages and the coordinate measuring machine (CMM) are just some of the advanced pieces of equipment that are introduced. The basic concept of Statistical Process Control (SPC) is also presented. Prerequisite(s): Complete MACHTL-360.

## **MASON – Bricklaying and Masonry (Department 408)**

### **MASON-190** **Credits: 1**

#### **Current Topics in Masonry**

This course explores current topics and trends in the masonry and bricklaying fields. Students may participate in hands-on demonstrations of new technology, site visits to manufacturers and suppliers to the trade, and other topics that provide the student a well-rounded view of the masonry and bricklaying trade and innovative construction methods.

### **MASON-300** **Credits: 5**

#### **Fundamental Bricklaying**

This course provides training in laying brick and blocks, with application to straight walls,

corners and jambs. Students develop skills in the handling of bricklaying tools, spreading mortar, laying bricks and blocks to a line, and striking joints. Prerequisite(s): Must be admitted to the Bricklaying program (30-408-2).

### **MASON-303** **Credits: 5**

#### **Advanced Bricklaying**

This course provides training in constructing walls with various brick bonds, brick sills, blocked walls and details of veneering. Emphasis is on developing masonry skills to accepted trade standards. Prerequisite(s): Completion of or currently enrolled in MASON-300. Must be admitted to the Bricklaying program (30-408-2).

### **MASON-308** **Credits: 1**

#### **Job Safety and Layout**

The proper use, care and maintenance of tools and equipment of the trowel trades are studied with specific emphasis on construction safety. Basic building layout is taught as it relates to masonry. Prerequisite(s): Must be admitted to the Bricklaying program (30-408-2).

### **MASON-356** **Credits: 2**

#### **Methods 1 – Fundamentals**

This is a basic technical course in the practice and methods of the masonry trade. Through analysis, demonstration and discussion, various operations used in the trade are studied. Prerequisite(s): Must be admitted to the Bricklaying program (30-408-2). Completion of or currently enrolled in MASON-300.

## **MATH – Mathematics (Department 804)**

### **MATH-107** **Credits: 3**

#### **College Mathematics**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric systems to solve problems. Data topics emphasize data organization and summarization skills, including frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem-solving, critical thinking and logical reasoning, making connections, and using calculators. Prerequisite(s): Complete one of the following: MATGEN-109, ACT (17-19), High School GPA (2.30-2.59), Accuplacer (64 or higher), GED (155-164) or ALEKS PPL (14-24).



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**MATH-113** Credits: 3

### College Technical Mathematics 1A (Applied Algebra)

Topics include solving linear equations, graphing, percent, proportions, measurement systems, computational geometry and right triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1. Prerequisite(s): Complete MATGEN-110 with a grade of C or higher, or satisfactory MATC placement test scores.

**MATH-114** Credits: 2

### College Technical Mathematics 1B (Applied Geometry and Trigonometry)

This course is a continuation of College Technical Mathematics 1A. Topics include performing operations on polynomials, solving quadratic and rational equations, formula rearrangement, solving systems of equations, and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1. Prerequisite(s): Complete MATH-113 with a grade of C or higher.

**MATH-115** Credits: 5

### College Technical Mathematics 1

Topics include solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; and operations on polynomials. Emphasis will be on the application of skills to technical problems. This course is the equivalent of successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B. Prerequisite(s): Complete MATGEN-110, MATH-107, MATH-134 or MATH-135 with a grade of C or higher, or satisfactory MATC placement test score.

**MATH-116** Credits: 4

### College Technical Mathematics 2

Topics include vectors, trigonometric functions and their graphs; identities; exponential and logarithmic functions and equations; radical equations; equations with rational exponents; dimension of a circle; velocity; sine and cosine graphs; complex numbers in polar and rectangular form; trigonometric equations; conic sections; and analysis of statistical data. Emphasis will be on the application of skills to technical problems. Prerequisite(s): Complete MATH-114 or MATH-115 with a grade of C or higher.

**MATH-123** Credits: 3

### Math With Business Applications

This course integrates algebraic concepts, proportions, percents, simple interest, compound interest, annuities and basic statistics with business/consumer scenarios. It also applies

math concepts to the purchasing/buying and selling processes. Prerequisite(s): Complete MATGEN-109 with a grade of C or higher, or satisfactory MATC placement test score.

**MATH-134** Credits: 3

### Mathematical Reasoning

All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental and health issues that require quantitative reasoning skills. An activity-based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning and problem-solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course may be used as the first of a two-part sequence that ends with Quantitative Reasoning as the capstone general education math requirement.

**MATH-135** Credits: 3

### Quantitative Reasoning

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include construction and interpretation of graphs, descriptive statistics, geometry and spatial visualizations, math of finance, functions and modeling, probability, and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course. Prerequisite(s): Complete MATH-134 or ACT Math sub-score of 18 or higher.

**MATH-189** Credits: 3

### Introductory Statistics

Students taking Introductory Statistics display data with graphs, describe distributions with numbers, perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters and test hypotheses. They draw inferences about relationships including ANOVA.

**MATH-197** Credits: 5

### College Algebra and Trigonometry With Applications

This course covers those skills needed for success in calculus and many application areas on a baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and functions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinatorics, and the binomial theorem. Prerequisite(s): Complete MATH-116 or MATH-200 with a grade of B or higher, or satisfactory MATC placement test score.

**MATH-200** Credits: 4

### Intermediate Algebra

Students study the construction and resulting properties of the real number system. Students

simplify and factor algebraic expressions using fundamental laws and order of operations; solve first- and second-degree equations and inequalities in one variable, systems of equations and exponential and logarithmic equations, graph first-degree and second-degree equations and inequalities in two variables; inverse functions and solve equations involving rational expressions, fractional exponents and radicals. Students will learn the basic definitions of relations and functions and perform operations on functions. Prerequisite(s): Complete MATH-107, MATH-134 or MATH-135 with a grade of B or higher.

**MATH-201** Credits: 4

### College Algebra

Students study properties of the real and complex number system; quadratic, polynomial, rational, exponential and logarithmic functions; equations and inequalities; combinatorics; the binomial theorem, the use of matrices and determinants in solving systems of equations, systems of inequalities, nonlinear systems, sequences, series, and probability. Course includes use of a graphing calculator. Prerequisite(s): Complete MATH-200 with a grade of C or higher, or satisfactory MATC placement test score.

**MATH-202** Credits: 3

### Trigonometry

Topics include circular functions, graphing of trigonometric functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles, complex numbers, DeMoivre's theorem, polar coordinates, and vectors. Learning involves extensive use of a graphing calculator. Prerequisite(s): Complete MATH-201 with a grade of C or higher.

**MATH-211** Credits: 4

### Survey in Calculus and Analytic Geometry

A one-semester survey with applications to business administration, economics and nonphysical sciences. Topics include coordinate systems, equations of curves, limits, differentiation, integration and applications. May not be used as a prerequisite for MATH-232. Prerequisite(s): Complete MATH-200.

**MATH-230** Credits: 5

### College Algebra and Trigonometry

This course prepares students for calculus. Topics include real and complex number systems, equations, inequalities, functions (linear, polynomial, rational, radical, exponential, logarithmic and trigonometric) and their graphs, systems of equations and inequalities (linear and nonlinear), conic sections, theory of equations, matrix methods of solution of linear equations, analytic trigonometry, and applications of trigonometry. Learning involves extensive use of a graphing calculator. Prerequisite(s): Complete MATH-116 or MATH-200 with a grade of B or higher, or satisfactory MATC placement test score.



# MATH – MEDAST

## **MATH-231** Credits: 5

### **Analytic Geometry and Calculus 1**

Limit topics include continuity, trig functions, logarithms, infinite limits and limits at infinity. Derivative topics include the chain rule, implicit differentiation, related rates, approximations, higher order derivatives, extremum and other applications of the derivative. Integration topics include sums, antiderivatives, the Fundamental Theorem of Calculus, areas and the definite integral, and integration by substitution. Differential equations topics include growth and decay, and basic separation of variables. The course includes appropriate mathematical notation, trigonometric function and transcendental functions with optional coverage of hyperbolic functions. Prerequisite(s): MATH-202 or MATH-230 with a grade of C or higher, or four years of high school math (including two years of algebra, one year of geometry and one semester of trigonometry) with a grade of B or higher, or a satisfactory score on MATC placement test.

## **MATH-232** Credits: 5

### **Analytic Geometry and Calculus 2**

This course is a continuation of MATH-231. Topics include integration applications and techniques, improper integrals, indeterminate forms, infinite series, Taylor polynomials, conics, parametric equations, and polar equations. Use of a graphing calculator is required. Prerequisite(s): Complete MATH-231 with a grade of C or higher.

## **MATH-233** Credits: 5

### **Analytic Geometry and Calculus 3**

A continuation of MATH-232. Topics include vectors, geometry of space, vector valued functions, partial derivatives, multiple integrals and vector analysis. Extensive use of the graphing calculator is required. Prerequisite(s): Complete MATH-232 with a grade of C or higher.

## **MATH-234** Credits: 4

### **Differential Equations/Linear Algebra**

Topics include elementary differential equations, vendors, matrices, linear transformations, quadratic forms, Eigen values and applications. Extensive use of the graphing calculator is required. Prerequisite(s): Complete MATH-232 or MATH-233.

## **MATH-250** Credits: 3

### **Quantitative Reasoning**

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include construction and interpretation of graphs, descriptive statistics, geometry and spatial visualizations, math of finance, functions and modeling, probability, and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course. Prerequisite(s): Complete MATH-134 or ACT Math sub-score of 18 or higher.

## **MATH-260** Credits: 3

### **Basic Statistics**

Studies appropriate statistical techniques for the systematic collection, presentation, analysis and interpretation of data. Studies statistical inference including sampling techniques, confidence intervals, type I and II errors, hypothesis testing, and results interpretation. Also includes descriptive statistics, basic probability theory, the central limit theorem, probability distributions, linear regression, correlation and sample sizes. May require use of a graphing calculator or computer software. Lecture. Prerequisite(s): Complete MATH-200 with a grade of C or higher, or satisfactory MATC placement test score.

## **MATH-275** Credits: 3

### **Math Exploration for Elementary Teachers 1**

This course is intended for students enrolled in the Teacher Education Track (TET). Topics include theory of arithmetic of whole numbers, fractions and decimals. Also includes an introduction to algebra, estimation and problem-solving strategies. Prerequisite(s): Complete MATH-134.

## **MATH-276** Credits: 3

### **Math Explorations for Elementary Teachers 2**

This continuation of MATH-275 geometry, statistics and probability. Prerequisite(s): Complete MATH-275 with a grade of C or higher.

## **MATH-304** Credits: 1

### **Math Principles 1**

Topics include a review of operations with numbers, fractions, decimals, calculator skills, formulas, percents and measurement conversions. Applications are related to technical diploma programs.

## **MATH-308** Credits: 2

### **Math for Industrial Applications 1**

Concepts in basic algebra, along with principles of plane geometry, are studied. Emphasis is placed on calculating dimensions and angles of geometric figures related to industrial occupations.

## **MATRLS – Material Technology (Department 613)**

## **MATRLS-102** Credits: 3

### **Material Testing**

This lab/lecture course defines properties of engineering materials and then performs tests to measure these properties. ASTM procedures are examined and applied to many of the tests. Tests performed include hardness, tensile, impact, shear, compression, creep and bend testing. The course also covers failure modes such as fatigue and corrosion.

## **MATRLS-105** Credits: 2

### **Statistical Process Control**

This lecture course teaches the basic concepts of quality control and statistical process control

(SPC). Histograms, normal distributions, control charts (including  $\bar{x}$  and  $\bar{r}$ , moving range,  $p$  and  $np$ ), and process capability are covered. These tools are applied to common applications in manufacturing and service industries.

## **MATRLS-108** Credits: 2

### **Principles of Metallography**

This lab/lecture course studies the microstructures of common ferrous alloys (steels and cast irons) and their relationship to chemical composition, thermal cycles and mechanical properties. Phase diagrams are used to understand microstructures. Lab methods covered include sample preparation, microscopic and macroscopic examination, and photography. Prerequisite(s): Complete MATRLS-151.

## **MATRLS-151** Credits: 3

### **Metallurgy and Material Science**

This lecture/demonstration course studies engineering materials (metals, plastics, ceramics and composites). Topics include refining and recycling of metals, classification and uses of steels, cast irons, nonferrous alloys, plastics, material properties, phase diagrams, heat treatment, corrosion, and solidification. Atomic structure and nanotechnology are discussed.

## **MCDESG – Mechanical Design (Department 606)**

## **MCDESG-102** Credits: 3

### **Technical Drafting 1**

This course is designed to provide the principles of drafting as well as an introduction to computer-aided drafting. Geometric constructions, sketching, orthographic projection, section views, dimensions (without tolerances) and primary auxiliary views are covered in this course. Prerequisite(s): Completion of or currently enrolled in CIVIL-102.

## **MCDESG-104** Credits: 3

### **Technical Drafting 2 With CAD**

This course uses 2D and 3D CAD to introduce thread terminology, tolerances and fits, secondary auxiliary views, structural steel, and weldments. The relationship between parts is explored through assemblies created from downloaded components and student created models. Prerequisite(s): Complete MCDESG-102 and CIVIL-105. Completion of or currently enrolled in MCDESG-114.

## **MCDESG-106** Credits: 3

### **Advanced Engineering Graphics**

This course focuses on advanced engineering graphics concepts utilizing SolidWorks instruction includes advanced detailing of parts and assemblies bill of materials, parametric equations, tables, and spreadsheets. This course will emphasize GD&T in the relationship between parts and fits calculations between mating parts such as gears, bushings, keys, retaining rings and fasteners. Prerequisite(s): Complete MCDESG-104, MCDESG-114 and CIVIL-105.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**MCDESG-112** Credits: 3

### Tool Design

This course is designed to give the Mechanical Design student knowledge in the design of simple jigs and fixtures, gauges, and dies, using two- and three-dimensional design. Prerequisite(s): Complete MCDESG-106 and MCDESG-114.

**MCDESG-114** Credits: 2

### SolidWorks 1

This course introduces parametric solid modeling using SolidWorks software. Students focus on part modeling and assembly skills with an emphasis on design. Detail drawing with dimensioning and rapid prototyping techniques are also introduced.

**MCDESG-116** Credits: 3

### Design Elements

This course instructs students on the selection of machine elements (components) and their strength analysis. These elements include belts, chains, spur gears, keys, couplings, seals, bearings, clutches, brakes, electric motors and fasteners. Strength of materials concepts and fits are applied to the shafts that carry these elements. Prerequisite(s): Complete MCDESG-106, MCDESG-130 and CIVIL-105.

**MCDESG-118** Credits: 3

### Kinematics

This course covers the displacement, velocity and acceleration of four bar linkages, slider-cranks, crank-shapers, and compound mechanisms using graphical and analytical methods. Also covered are cam displacement diagrams, profiles, gear trains and epicycles. Prerequisite(s): Complete MCDESG-104 and CIVIL-105 and MATH-116 or MATH-202. Completion of or currently enrolled in MCDESG-106.

**MCDESG-120** Credits: 1

### Basic AutoCAD

Students are introduced to the use of AutoCAD software. The course is designed to be an introductory course enabling students to learn and apply computer-aided drafting (CAD) concepts relative to the preparation of construction drawings.

**MCDESG-124** Credits: 2

### SolidWorks 2

This course introduces advanced solid modeling techniques using SolidWorks software with an emphasis on mechanical design. Topics include advanced modeling techniques in sweeps, drafts, blends, shells, surfaces, advanced assembly techniques, sheet metal parts and weldments. Prerequisite(s): Complete MCDESG-114.

**MCDESG-125** Credits: 3

### Design Problems

This is the capstone course for the Mechanical Design Technology associate degree. Students take the knowledge and skills acquired in other courses (Drafting, Statics, Strength of Materials Machine Elements, Mechanisms)

and apply them to a design project. Students select their own project and define the scope, the path of the completion of the projects, perform necessary computations, and complete all working drawings. Prerequisite(s): Complete MCDESG-130, MCDESG-106 and MCDESG-114. Completion of or currently enrolled in MCDESG-116.

**MCDESG-130** Credits: 3

### Strength of Materials

Students analyze internal stresses on linear members. The course focuses on axial, direct shear, torsional shear and bending stresses. These stresses are also combined using Mohr's circle. Prerequisite(s): Complete MCDESG-160.

**MCDESG-133** Credits: 2

### Inventor 1

This course introduces parametric solid modeling using Inventor software. Course is focused on modeling skills for creating parts, assemblies and detail drawings. Rapid prototyping techniques are also introduced.

**MCDESG-134** Credits: 2

### Inventor 2

This course introduces advanced solid modeling techniques using Inventor software with a focus on design. Topics include advanced modeling techniques in sweeps, drafts, blends, shells, surfaces, advanced assembly techniques, sheet metal parts and weldments. Prerequisite(s): Complete MCDESG-133.

**MCDESG-135** Credits: 2

### PTC Creo (Pro/E) 1

This course introduces parametric solid modeling using PTC Creo (Pro/E). Students are introduced to modeling skills for creating parts, assemblies, detailed drawings and rapid prototyping techniques.

**MCDESG-145** Credits: 2

### PTC Creo (Pro/E) 2

This course introduces advanced solid modeling techniques using PTC Creo (Pro/E) software with a focus on design. Topics include advanced modeling techniques in sweeps, drafts, blends, shells and surfaces; advanced assembly techniques; sheet metal parts; and weldments. Prerequisite(s): Complete MCDESG-135.

**MCDESG-160** Credits: 3

### Statics

Statics is the study of forces on and in structures that are at rest. Forces, vectors, resultants, moments, couples, equilibrium, free-body diagrams, friction, centroids, and centers of gravity, and shear and moment diagrams are covered. Prerequisite(s): Completion of or currently enrolled in MATH-116 or MATH-202.

**MCDESG-162** Credits: 2

### Engineering Materials

This course emphasizes engineering materials and processes used in manufacturing. Fundamentals include the properties and structure of materials for manufactured goods, such as ferrous and nonferrous metals and

alloys, plastics, composites and ceramics, and the selection of materials for various functions. Casting and form casting processes, mold casting, powder metallurgy, and metal and nonmetal fabrication processes are included.

**MCDESG-163** Credits: 2

### Machining Processes

This course introduces machining processes used in manufacturing such as turning, milling, grinding, CNC, water jet cutting, EDM, punch press, welding, drilling, reaming and tapping. The course emphasizes best practices in mechanical design and design for manufacturability. Labs are integral to the course and expose the student to the various manufacturing processes and practices.

## MDRAFT – Mechanical and Computer Drafting (Department 421)

**MDRAFT-320** Credits: 1

### Coordinate Blueprint Reading

Instruction is given in the interpretation of CNC coordinate piece part drawings. Students translate standard engineering drawings into coordinate drawings used in the programming of CNC machine tools. Prerequisite(s): MDRAFT-386.

**MDRAFT-385** Credits: 1

### Machine Blueprint Reading 1

This course covers the basic principles essential for visualization and training in the interpretation of blueprints and freehand sketches of simpler machine parts. Emphasis is placed upon orthographic projection principles and pictorial drawing.

**MDRAFT-386** Credits: 1

### Machine Blueprint Reading 2

Instruction is offered in the interpretation of blueprints that show job procedure methods and their relation to drafting. Attention is given to representations of common machine processes, special forms of dimensioning, sections, and other advanced drafting and design principles. Prerequisite(s): Complete MDRAFT-385.

## MEDAST – Medical Assistant (Department 509)

**MEDAST-301** Credits: 2

### Medical Assistant Administrative Procedure

This course introduces students to office management and business administration in the medical office. The student learns to schedule appointments, perform filing, recordkeeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies. Students apply introductory medical coding skills and managed care terminology. Prerequisite(s): Must be admitted to Medical Assistant program (31-509-1).

# MEDAST – MFGMNT

## **MEDAST-302 Credits: 3**

### **Human Body in Health and Disease**

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases. Prerequisite(s): Complete HEALTH-101. Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-303 Credits: 2**

### **Medical Assistant Lab Procedures 1**

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform Clinical Laboratory Improvement Amendment (CLIA) waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology, and urinalysis testing. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-304 Credits: 4**

### **Medical Assistant Clinical Procedures 1**

Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills including screening, vital signs, patient history, minor surgery and patient preparation for routine and specialty exams in the ambulatory care setting. Learner explores communication principles and psychology theories related to patient care. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1). Completion of or currently enrolled in MEDAST-302 and MEDAST-303.

## **MEDAST-305 Credits: 2**

### **Medical Assistant Laboratory Procedures 2**

Prepares students to perform phlebotomy and Clinical Laboratory Improvement Amendment (CLIA) waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting. Prerequisite(s): Complete MEDAST-303 or CLABT-303. Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-306 Credits: 3**

### **Medical Assistant Clinical Procedures 2**

Prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, performing an electrocardiogram, assisting with respiratory testing, coaching patients and assisting with emergency situations in an ambulatory care setting. Students learn preventive care and principles of nutrition. Prerequisite(s): Complete MEDAST-304. Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-307 Credits: 2**

### **Medical Office Insurance and Finance**

Introduces medical assistant students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance-related duties. Prerequisite(s): Complete MEDAST-302. Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-308 Credits: 2**

### **Pharmacy for Allied Health**

Introduces students to medication classification, basic pharmacology principles and supplements. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration. Prerequisite(s): Complete MEDAST-302. Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-309 Credits: 2**

### **Medical Law, Ethics and Professionalism**

Prepares students to display professionalism and perform within ethical and legal boundaries in the healthcare setting. Students maintain confidentiality, examine legal aspects of ambulatory healthcare, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1).

## **MEDAST-310 Credits: 3**

### **Medical Assistant Practicum**

Requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual ambulatory healthcare settings. Learners perform medical assistant administrative, clinical and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. This is a supervised, unpaid, clinical experience. MAERB required practicum: 160 minimum hours (MAERB minimum) up to 216 hours. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1). Complete MEDAST-301, MEDAST-302, MEDAST-303, MEDAST-304 and MEDAST-308. Completion of or currently enrolled in MEDAST-305, MEDAST-306 and MEDAST-307.

## **MEDINT – Medical Interpreter (Department 538)**

### **MEDINT-101 Credits: 3**

#### **Cultural Awareness**

Recognize, respect and accept differences in customs, beliefs and behaviors in others. Learners will examine people's specific differences and learn to respond from a variety of cultures.

### **MEDINT-102 Credits: 3**

#### **Spanish Regionalisms/English Variants**

Students will explore words and expressions utilized in different countries as they relate to health, work and everyday living. Cultural

ethnic background, historical and immigration factors are also examined. Prerequisite(s): Dual language proficiency (English/Spanish).

### **MEDINT-103 Credits: 3**

#### **Intro to Medical Interpretation**

This course introduces the professions of translation and interpretation. The different types of translation and interpretation are explored. Actual translations will be done in class, as well as interpretation exercises. The language industry will be discussed, which includes freelance translation and interpretation. Comprehension assessment done during the class will determine the learner's competency in both working languages. Prerequisite(s): Must be admitted to the Medical Interpreter program (30-538-1).

### **MEDINT-104 Credits: 3**

#### **Applied Medical Interpretation 1**

Develop interpreting skills needed within the healthcare environment. Learning centers around general information on healthcare and the healthcare system, functions within hospital departments, healthcare procedures, and the terms needed for interaction in the healthcare environment. Culture in interpreting and communication skills for advocacy are analyzed.

### **MEDINT-106 Credits: 3**

#### **Introduction to Medical Translation**

Fundamental overview of the intricacies of converting texts from one language to another within the context of healthcare services. Coursework includes analysis and comprehension of English or Spanish source texts and the correct construction of writing in target languages. Explore selected materials, including patient information, medical journal articles and medico-legal documents, and use sources available to medical translators. Prerequisite(s): Dual language proficiency (English/Spanish).

### **MEDINT-107 Credits: 5**

#### **Bilingual Medical Terminology**

This course delineates a detailed analysis and application of medical terms in English and Spanish. It offers the competencies required to meet or exceed the demands of medical interpreters and bilingual personnel within our nation's healthcare systems as they work with patients of limited English proficiency. Prerequisite(s): Dual language proficiency (English/Spanish).

### **MEDINT-108 Credits: 3**

#### **Ethics and Standards for Medical Interpreters**

This course delineates a critical overview of the applied ethics, risk management and legal practices found at local and national levels within healthcare organizations. It delineates the scope of service that must be observed by medical interpreters and bilingual personnel while working with patients of limited English proficiency. Prerequisite(s): Dual language proficiency (English/Spanish).



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**MEDINT-110** Credits: 3

### **Applied Medical Interpretation 2**

Continue to develop accurate interpreting skills through practice and analysis. Simultaneous interpretation, managing communication, documentation, legal boundaries and interpreting in healthcare specialty areas are emphasized.

**MEDINT-111** Credits: 3

### **Applied Medical Interpretation 3**

Through a variety of experiences such as job shadowing, role playing and practice, this course provides students with entry-level experiences in interpreting skills. Expands professional insights as students share and analyze fieldwork experiences. Prerequisite(s): Completion of or currently enrolled in MEDINT-110.

**MEDINT-112** Credits: 3

### **Dual Language Enhancement for Healthcare**

This course highlights fundamental skills of written and oral language for healthcare professionals. Coursework includes composition, public speech and reading comprehension in the English and Spanish language. Prerequisite(s): Must be admitted to the Medical Interpreter program (31-538-1).

## **MEET – Meeting and Event Management (Department 109)**

**MEET-108** Credits: 2

### **Events Budget and Financial Management**

Establishing a realistic and sound budget is vital to creation of a successful meetings. This course examines the steps in developing a meeting budget. Students learn techniques for projecting and managing budgets including per person methodology, return on investment and break-even analysis. Prerequisite(s): Completion of or currently enrolled in MEET-180.

**MEET-151** Credits: 3

### **Introduction to Hospitality/Tourism**

This course introduces the various components of the travel services industry including basic terminologies and tourism vocabulary. The course provides a general orientation to the program and a survey of travel career opportunities. Students learn to integrate current knowledge with ongoing events and trends of the travel and tourism industry.

**MEET-152** Credits: 3

### **Fundamentals of Green Meetings**

This course provides students with a solid foundation of what is a green meeting, commonly used terminology, and how to execute a socially responsible and environmentally responsible meeting or event. Through a green lens, students will explore core strategies and principles in planning a green meeting. Further focus includes green tools and resources available to plan a green meeting.

**MEET-178** Credits: 3

### **Meeting and Convention Planning**

This course introduces students to the meetings industry, including promotional activities, negotiating for meeting services, convention market salesmanship, customer service and convention servicing. Course content includes a study of the planning, marketing, execution and follow-up of meetings, conferences, conventions and package promotions. Facilities and event planning, as well as convention methods and techniques, are explored in depth. Prerequisite(s): Complete MEET-180 and MEET-181.

**MEET-180** Credits: 3

### **Registration and Housing Logistics**

This course enables the students to identify and develop tools that allow attendees to have a seamless meeting experience. One critical tool the students will learn in this course is to design a functional registration process. Students will also develop a housing process by creating rooming lists, coordinating the housing logistics and managing sleeping guest rooms from blocks. Prerequisite(s): Complete MEET-151. Completion of or currently enrolled in MEET-181.

**MEET-181** Credits: 3

### **Exposition/Special Event Management**

This course focuses on the planning of special events of all types including expositions, meetings, conventions, trade shows, retail events, festivals and nonprofit events in the hospitality and event management industry. Emphasis is placed on the methodology of event planning including theme setting, building the target sponsorship, contracts, negotiations, site selections, planning event specifications and working with budgets. Prerequisite(s): Complete MEET-151.

**MEET-184** Credits: 3

### **Risk Management and Crisis Planning**

This course focuses on the art and science of negotiations, crisis planning and risk management, and contract and legal issues in the meetings industry. Students learn to identify issues that are negotiable, the steps in the negotiation process and commonly used negotiation techniques. The course also focuses on basic contract provisions and key clauses of a facility contract as well as the unique elements and differences of hotel and convention center contracts. Prerequisite(s): Complete MEET-180.

## **MFGMNT – Manufacturing Maintenance (Department 462)**

**MFGMNT-101** Credits: 2

### **Introduction to Robotics**

In this course, learners are introduced to programming techniques for industrial robots. The learner examines teach pendant programming including I/O, routines, decision-making, six frames of positional operation, and robot communication. Upon completion of the course, learners will be able to operate and program industrial robots commonly used in

Industry 4.0. Portions of this course are online. A computer with a 64-bit operating system and reliable internet are required to complete this course.

**MFGMNT-102** Credits: 3

### **Motor Controls for Technicians**

This course examines the fundamentals of electric motors and motor control. Students will learn to recognize and draw basic symbols, use the language of motor control, and apply these in industry adopted formats. Students will also learn to draw and read ladder and wiring diagrams, and be introduced to the logic used in motor control. Learners will apply this logic to correctly interpret, install, service and wire control circuits. Wiring of panels, machines and systems will also be examined. Portions of this course are online. A computer with a 64-bit operating system and reliable internet is required to complete this course.

**MFGMNT-103** Credits: 1

### **MSSC Safety**

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Safety online assessment. The class will concentrate on the specific content covered in the MSSC Safety module and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC Certified Production Technician Safety credentials.

**MFGMNT-104** Credits: 1

### **MSSC – Quality**

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Quality online assessment. The class will concentrate on the specific content covered in the MSSC Quality module and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC Certified Production Technician Quality credential.

**MFGMNT-105** Credits: 1

### **MSSC – Process**

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Manufacturing Processes online assessment. The class will concentrate on the specific content covered in the MSSC Manufacturing Processes module and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC Certified Production Manufacturing Processes credential.

**MFGMNT-106** Credits: 1

### **MSSC – Maintenance**

This class prepares the student to successfully complete the manufacturing Skill Standards Council (MSSC) Maintenance online assessment. The class will concentrate on the specific content covered in the MSSC Maintenance module and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC certified Production Maintenance credential.



# MFGMNT – MUSIC

**MFGMNT-121** Credits: 2

## Vision and Smart Sensors

In this course, learners will utilize 2D cameras, lighting systems and smart sensors in machine applications to provide imaging-based automatic inspection and analysis for such applications as automatic inspection, process control and robot guidance. Learner will use vision systems to: sort good and bad parts; identify, position and orient objects images for robot guidance and orientation using edge detection; blob detection; pattern recognition; image acquisition; and bar code and QR code recognition. Learners will integrate smart sensors into PLC machine applications. Upon completion of this course, learners will apply camera and smart sensors into a machine process application.

**MFGMNT-135** Credits: 4

## Digital Electronics

This is an introductory course in digital logic devices and circuits. Students learn the basic logic functions, sequential and synchronous logic circuitry, general applications, and troubleshooting techniques through hands-on lab work. Students will learn interfacing techniques to integrate with manufacturing equipment. The computer will be used to generate circuit simulations and technical reports.

**MFGMNT-140** Credits: 3

## PLC Systems Basics

This course is a study of programmable logic controllers (PLCs) used in advanced manufacturing systems. The history and principles of operation and the installation, programming and maintenance of the programmable logic controllers (PLC) are covered in lecture. Basic programming instructions are covered in lecture and lab, and downloaded and simulated on PLC workstations.

**MFGMNT-190** Credits: 2

## Design Problems

This course introduces the students to sensors and controls in advanced manufacturing systems. The students will work with advanced manufacturing Controllers and PLCs to control a manufacturing system. Data collection and system controls will be implemented and installed to manipulate a manufacturing system or simulation. The final system will be properly documented with operation manuals and service manuals to indicate troubleshooting procedures.

**MFGMNT-332** Credits: 2

## Rigging and Lifting

This system teaches how to safely move loads of different shapes and sizes using a variety of methods. As well as additional types of rigging skills including equipment movement, wire mesh slings, synthetic slings, knots, load turning and cranes. This course includes additional hoists, slings, loads and student learning materials for theory and lab. This course also covers the operation, function and maintenance of wire mesh slings and fiber ropes, load movement, and rigging knots. Proper rigging techniques are vital for efficient movement of loads and workers safety.

**MFGMNT-353** Credits: 2

## Mechanical Drives 2

Mechanical Drives 2 covers heavy duty V-belt drives including conventional, multiple, wedge and variable speed V-belt drives. This course describes V-belt selection and maintenance by covering V-belt size specification, component identification and troubleshooting. Learners will develop fundamental knowledge of synchronous belt drives, lubrication concepts, precision shaft alignment and coupling. Also covered are heavy-duty chain drives which describes silent chain drives, multiple strand systems, chain selection, chain lubrication, chain maintenance and troubleshooting. Prerequisite(s): Complete MFGMNT-352

**MFGMNT-354** Credits: 3

## Mechanical Drive Systems

Mechanical Drives Systems introduces mechanical systems and develops fundamental knowledge of industrial drive systems and practices. Covers basic safety practices and the installation of key fasteners, power transmission systems, V-belt drives, chain drives, spur gear drives, multiple shaft drives and laser alignment. Topics covered include learning how to select, install, adjust, troubleshoot and repair a range of drive systems, which are commonly found in both automated and manual machines used in every industry around the world.

**MFGMNT-355** Credits: 2

## Print Reading Manufacturing

Instruction is given in design, application, blueprint reading, symbols and drawings of electromechanical systems. Outlays of various machine mechanical operation and electronic control systems are used. Proper mechanical schematics, ladder, isometric piping and flow diagrams are discussed and drawn. Prerequisite(s): Completion of or currently enrolled in HYDPNU-330.

**MFGMNT-359** Credits: 2

## Mechanical Fabrication

Mechanical Fabrication grounds learners in the basic knowledge needed for assembly. Learners focus on the proper and safe application of hand tools. Mechanical fabrication builds knowledge in the many types of bolts, wrenches and other fittings commonly used in industry and how to properly apply them, including pneumatic fabrication fittings. Focuses on proper techniques for checking connections and testing fittings with an emphasis on safety. Proper tool use helps in many ways, including injury avoidance, fewer product quality issues and lower tool breakage costs.

## MKTG – Marketing (Department 104)

**MKTG-102** Credits: 3

### Marketing Principles

Marketing Principles is the study of the organizational function and set of processes for creating, communicating and delivering value to customers and managing customer relationships in ways that benefit the organization, its stakeholders and society as a whole.

**MKTG-104** Credits: 3

## Selling Principles

Personal selling emphasizes building relationships with prospects and customers through partnering by using the consultative approach to selling. Primary attention is given to the principles and practices used by individuals who have achieved long-term success in personal selling. The entire selling process, selling strategies, practices and techniques will be covered.

**MKTG-106** Credits: 3

## Retail and Consumer Marketing

Course covers how consumers choose, use and dispose of products, services, experiences and ideas, better enabling marketers to define and communicate their brands' and products' value and craft effective marketing communications to increase the chance their brand or product will be perceived positively and purchased over competitors' products. Prerequisite(s): Complete MKTG-102.

**MKTG-107** Credits: 3

## Customer Experience

Course covers the skills needed to deliver an exceptional customer experience, build customer relationships, the use of technology to improve the customer experience, service strategies and service recovery with the ultimate goal of customer loyalty.

**MKTG-118** Credits: 3

## Social Media Marketing

This course covers marketing strategies on Facebook, Instagram, X (formerly known as Twitter), Snapchat, Pinterest, LinkedIn and YouTube. This is an application-based course and will teach students how to utilize each platform for social media marketing.

**MKTG-125** Credits: 3

## Advertising: Brands and Campaign

Examine advertising's role in the marketing landscape by exploring topics such as investigating how research influences decisions, creating a creative strategy, developing creative ideas and pieces, and selecting media channels.

**MKTG-134** Credits: 3

## IMC Management

Introduces students to the concepts of Integrated Marketing Communication. Emphasis is placed on branding, market segmentation, positioning, message strategy, promotion and the execution of marketing communications through appropriate channels

**MKTG-144** Credits: 3

## Client Services

Examine the important role account managers play in order to deliver marketing communications solutions to clients. Learn the key skill sets, understand the critical responsibilities and explore the hands-on tools necessary to excel.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**MKTG-165** Credits: 3

### Digital Marketing

The use of digital marketing channels and online platforms are covered, including search engine optimization, digital marketing analytics, paid search, email marketing and social media campaigns. Course includes a comprehensive simulation.

**MKTG-173** Credits: 3

### Marketing Research/Analytics

Examine the importance of data-driven decisions to marketing success by exploring topics such as data collection and analysis, tracking critical metrics, and the sharing and reporting of key insights.

**MKTG-175** Credits: 1

### Marketing Internship

This course is a cooperative training program that allows students to observe and apply in a practical manner the principles and techniques of marketing studied in Marketing Management or Fashion/Retail. Prerequisite(s): Complete INTRN-796 with a grade of C or higher.

**MKTG-198** Credits: 3

### Visual Media Marketing

This course covers visual media marketing whose principles integrate graphic design, web design, digital imaging and business marketing strategies. Students will use a variety of industry-standard design tools in this project-based course.

## MLABT – Medical Laboratory Technician (Department 513)

**MLABT-161** Credits: 1

### Computer Applications for the Medical Lab

In this course, students learn basic computer skills used in the clinical laboratory. Students use the internet and database software to become familiar with clinical laboratory computer functions. Prerequisite(s): Must be admitted to the Phlebotomy program (30-513-1). Completion of or currently enrollment in HEALTH-107, CLABT-110 and CLABT-111.

**MLABT-166** Credits: 3

### Phlebotomy Clinical Experiences

This clinical course provides 120 hours of the practical application of principles and techniques of phlebotomy. Students observe and perform routine phlebotomy and processing tasks in affiliating phlebotomy facilities. Prerequisite(s): Complete CLABT-111.

## MTLGY – Metallurgy (Department 422)

**MTLGY-301** Credits: 1

### Basic Heat Treatment of Metals

This course is designed to provide information related to steel types, alloying elements and microstructure as they relate to the heat treatment of steel. Lab work includes heat treating (hardening, tempering, normalizing and annealing), hardness testing and tensile testing.

**MTLGY-321** Credits: 1

### Metallurgy 1

This course gives an introduction to metals commonly used to manufacture products. It describes the properties and applications of steels, cast irons, aluminum alloys and other common nonferrous metals. It covers the AISI/SAE specifications for steel and common nonferrous metals, including aluminum and copper alloys. Lab work includes hardness testing, tensile testing and common heat treatments used with steel.

## MUSIC – (Department 805)

**MUSIC-101** Credits: 2

### Music Business

This course is designed to develop insight into portions of the music-business world, including the recording industry, record labels, copyrights, performing, managers, producers, contracts, songwriting, music publishing, print publishing, promotion, business planning, career planning, website construction and much more.

**MUSIC-103** Credits: 1

### Major Instrument 1

Emphasis is placed on individualized instruction on one's major instrument with course emphasis to include reading, developing musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass or Percussion.

**MUSIC-104** Credits: 1

### Major Instrument 2

Individualized instruction at the intermediate level is given on the major instrument, with emphasis on reading, developing musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass or Percussion. Prerequisite(s): Complete MUSIC-103.

**MUSIC-105** Credits: 1

### Major Instrument 3

This is an early advanced-level course designed to develop specific performance skills in all styles of music with emphasis to include reading, musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass, Percussion or Voice. Prerequisite(s): Complete MUSIC-104, MUSIC-178 or MUSIC-193.

**MUSIC-106** Credits: 1

### Major Instrument 4

This is an advanced-level course designed to develop specific performance skills in all styles of music with emphasis to include reading,

musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass, Percussion or Voice. Prerequisite(s): Complete MUSIC-105.

**MUSIC-107** Credits: 1

### Songwriting 1

This course is offered to songwriters of all levels. The ability to produce written charts or convey a finished song in an audio format is necessary to take this course. The art and craft of songwriting will be explored by examining the compositional tools that strengthen lyrics, melody, harmony and form. Students will learn how to convey their ideas and emotions in a coherent and effective manner using these tools and will also gain a perspective on the more abstract concept known as the creative muse. Songs from across the musical spectrum and throughout songwriting history will be used for analysis. All musical styles are welcome and students will write songs in the genre of their choosing. Prerequisite(s): Complete MUSIC-150.

**MUSIC-108** Credits: 1

### Film Scoring 1

Film Scoring 1 is a lecture/survey class covering four areas: the history, the production or process of film scoring, creating the score, and the business details of film scoring.

**MUSIC-109** Credits: 1

### Film Scoring 2

Film Scoring 2 is a lecture/lab class exploring the practicalities of composing music for the visual media including spotting, thematic branding, tempo mapping, developing the grand concept, functional scoring and business opportunities. Prerequisite(s): Complete MUSIC-108.

**MUSIC-117** Credits: 2

### Music Analysis

This class will focus on the basic elements of music: melody, harmony, texture, timbre, expression and form. Through analysis of all these elements, students will come to better understand and recognize the distinct features of music from various periods and styles of music of the Western culture from the 1500s to the present. The class will emphasize the understanding, recognition and appreciation of various musical styles; a better understanding of music of the past so as to better understand the music of the present and future, broadening one's basis of acceptance as to what constitutes music; maintain and develop an openness to new and different approaches and styles of music or ideas that are divergent from one's own; and becoming aware of environmental influences on music such as social, political and cultural forces. The class uses lecture, analysis, guided listening and presentation. Prerequisite(s): Complete MUSIC-150.

**MUSIC-119** Credits: 1

### Music Ensemble 4

A continuation of Ensemble 3 with the continued study and performance of improvisation, reading music notation, ear training, and reading chord charts and lead sheets. Performance is on the intermediate to advanced level. Prerequisite(s): Complete MUSIC-141.

# MUSIC

## **MUSIC-120 Credits: 1**

### **Choir 2**

Students develop vocal skills, learn basic note reading techniques and learn how to sing in harmony with others in a choral group that sings a variety of vocal styles, such as gospel, jazz, classical and pop. Choir 2 is open to all MATC students and especially to anyone who would enjoy choral singing.

## **MUSIC-125 Credits: 1**

### **Music Studio Teaching Methods**

This class will include the study of various teaching methods and learning styles and their application to studio one-on-one instruction for various instruments and voice, materials and techniques, performance practices, and business aspects of studio management. The class includes lecture, demonstration/ presentation and lesson observation. Prerequisite(s): Complete MUSIC-152.

## **MUSIC-126 Credits: 1**

### **Percussion Ensemble**

This course is specifically geared to performing percussion music. It is designed to explore the music and techniques of playing the many styles and instruments of world and classical percussion. Areas of study will include, but are not limited to: Brazilian, African and Afro-Cuban music, as well as classic American compositions. The course will focus on reading, interpretation, improvisation, music theory and technique. Learners will perform on many percussion instruments and become skilled at functioning in an ensemble. The Percussion Ensemble will be prepared to perform at MATC Concert Series alongside music ensembles.

## **MUSIC-127 Credits: 1**

### **Drum Lab**

Drum Lab is a course designed to meet the needs of the beginning percussionist and as well as the student interested in an introduction to stick and hand drumming. Course focus is on music reading, rhythmic development, technique and improvisation. Students will obtain the basic knowledge of the instrument to prepare for Major Instrument Percussion and Percussion Ensemble class.

## **MUSIC-141 Credits: 1**

### **Music Ensemble 3**

Students will perform in a musical group. Participants will continue to advance their musical performance skills. Emphasis is placed on reading music notation, reading chord charts and lead sheets, improvisation, and ear training. Prerequisite(s): Complete MUSIC-163.

## **MUSIC-142 Credits: 2**

### **Introduction to Composition**

Students will explore the art of the composer. This course takes the class through an in-depth examination of genres, styles, the composer's tools, arranging and orchestration considerations, and sources of inspiration.

## **MUSIC-143 Credits: 1**

### **Music Notation 1**

Music Notation 1 introduces the learner to the basics of music manuscript. Students will notate basic rhythm, melody and harmony by hand. The learner will also be introduced to the fundamentals of Finale and Sibelius music notation software and learn about the techniques used in the industry of engraving notation. Students will study the form and texture of multiple genres of music.

## **MUSIC-144 Credits: 1**

### **Music Notation 2**

Music Notation 2 is an intermediate to advanced level course in which the learner will explore the Music Engraving software of Finale and Sibelius in great detail. An emphasis on music theory, form and analysis in many genres of music will accompany an advanced series of instruction and exploration of music manuscript.

## **MUSIC-147 Credits: 1**

### **Songwriting 2**

This course is a continuation of Songwriting I. Students will hone the art and craft of songwriting and will develop a more sophisticated approach to writing lyrics, melody, harmony and form. The process of song arrangement will be discussed and emphasized in more detail in this second part of the course. The challenge of writing songs in various genres and for specific commercial purposes will be explored. Prerequisite(s): Complete MUSIC-107.

## **MUSIC-148 Credits: 2**

### **Music Fundamentals 1**

An introduction to the building blocks of music: reading, notation, keys, scales and chords.

## **MUSIC-149 Credits: 3**

### **Music Theory 1**

This introductory course presents fundamental music theory. The following topics are presented: the study of intervals; major and minor tonality; scale construction; diatonic triads; harmonic function; figured bass, four-voice chorale; voice leading and chord voicing; figured brass, chord inversion; tonal and structural organization in music; seventh chords and simple/compound meter. This class uses lecture, workbook exercises, sight singing and dictation.

## **MUSIC-151 Credits: 4**

### **Music Theory 2**

This course involves the application of knowledge acquired in Music Theory 1 as it relates to harmony and harmonic progression. Our objective is to develop skills in fundamental to advanced harmonizing within the modern musical idioms. Prerequisite(s): Complete MUSIC-150 or MUSIC-149.

## **MUSIC-152 Credits: 3**

### **Composition 1**

Students learn to write original compositions for commercial and artistic purposes (film, radio, concert, etc.). Compositional styles covered include classical, jazz, pop, Latin and serial composition, radio, and television. Prerequisite(s): Complete MUSIC-151.

## **MUSIC-153 Credits: 3**

### **Composition 2**

Students compose, orchestrate and record in various musical styles using computers, digital keyboards, sequencing and music notation software. Prerequisite(s): Complete MUSIC-152.

## **MUSIC-158 Credits: 1**

### **Orchestration 1**

Students will learn the fundamentals of orchestration (arranging) for small ensembles from jazz combo to small chamber orchestra. Students will orchestrate original works and classic examples from the literature for live players or digital orchestra. Students will learn instrumental ranges, transpositions and characteristics for maximum effect. Prerequisite(s): Complete MUSIC-151

## **MUSIC-159 Credits: 1**

### **Orchestration 2**

A continuation of Orchestration 1, students will study and develop intermediate and advanced orchestration concepts through writing for larger ensembles from sextets to full orchestra. Students will apply skills to the orchestration of original works and classic literature, contemporary genres, and film scores. Prerequisite(s): Complete MUSIC-158.

## **MUSIC-162 Credits: 1**

### **Music Ensemble 1**

Students have the opportunity to learn the various styles of music and how to reproduce them. Participation in this class will give the student valuable practical experience in reading music notation, reading chord charts and lead sheets, improvisation, learning music in the confines of a musical ensemble, thus better equipping them to perform professionally.

## **MUSIC-163 Credits: 1**

### **Music Ensemble 2**

A continuation of Music Ensemble 1 with continued study and performance of reading music notation, reading chord charts, improvisation and learning music in the confines of a musical ensemble. Performance is on the intermediate to advanced level. Prerequisite(s): Complete MUSIC-162.

## **MUSIC-167 Credits: 1**

### **Improvisation 1**

The objective of this course is to begin to develop abilities in jazz improvisation through the study of scale/chord relationships and jazz solo vocabulary. The course involves both the study of theoretical concepts as well as practice and performance on one's chosen instrument. Prerequisite(s): Complete MUSIC-151.

## **MUSIC-168 Credits: 1**

### **Improvisation 2**

A continuation of MUSIC-167, the intent of this course is to provide students with more advanced training in jazz improvisation through the study of scale/ chord relationships and jazz solo vocabulary. The course involves both the



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study of theoretical concepts as well as practice and performance on one's chosen instrument. Prerequisite(s): Complete MUSIC-167.

### **MUSIC-173** Credits: 1 **Music Reading**

This course is designed to provide the student with the ability to read standard music notation and play music on their primary instrument. Instruction begins with the fundamental tools and terminology of music notation. It moves through simple melodies in simple rhythms and meters and progresses to longer and more difficult melodies in more difficult rhythms and compound meters.

### **MUSIC-174** Credits: 2 **Ear Training 1**

This class will emphasize the ability to accurately recognize melodic, harmonic and rhythmic musical sounds. This will be done through sight singing, dictation and transcription, and incorporation of theory fundamentals. Prerequisite(s): Complete MUSIC-151.

### **MUSIC-177** Credits: 1 **Piano Lab 1**

A beginning piano class designed to develop skills in music reading and proper keyboard technique as well as the functional use of scales, chords, transposition and other elements of music theory. Taught in a group class setting on Roland digital pianos. Elementary to late-elementary level.

### **MUSIC-178** Credits: 1 **Piano Lab 2**

A continuation of MUSIC-177, this class is designed to improve skills in music reading and proper keyboard technique as well as the functional use of scales, chords, transposition and other elements of music theory. Prerequisite(s): Complete MUSIC-177.

### **MUSIC-181** Credits: 1 **Conducting**

This course will develop basic conducting skills. It will explore and develop techniques associated with historically classical instrumental and vocal conducting as well as contemporary genres and conducting/leading a group while also playing in the group. Prerequisite(s): Complete MUSIC-151.

### **MUSIC-182** Credits: 3 **Composition for Advertising**

Is a class that applies music composition skills to the area of broadcast advertising music for radio and television commercials, in-house instructional videos, convention theme songs, and variations on a melodic theme for multi-commercial campaigns, all within the confines of the predetermined guidelines of the client's specific direction. The details of running a commercial production company will also be emphasized including establishing a client base, demo writing, producing a final production, keeping good books, fee structures and pitching skills. Prerequisite(s): Complete MUSIC-151.

### **MUSIC-184** Credits: 2 **Ear Training 2**

This course is a continuation of MUSIC-174 Ear Training 1. This class will emphasize the ability to accurately recognize melodic, harmonic and rhythmic musical sounds. This will be done through sight singing, dictation and transcription, and incorporation of theory fundamentals. Prerequisite(s): Complete MUSIC-174.

### **MUSIC-185** Credits: 1 **Bass Lab 1**

Bass Lab 1 is designed to meet the needs of the beginning bass guitar player. The course will acquaint the student with tuning, parts of the bass guitar and proper playing techniques. Course will also cover the basic skills of reading music in the bass clef. The student will perform simple music examples in class on their instrument.

### **MUSIC-187** Credits: 1 **Guitar Lab 1**

Group lessons instruction for beginners or guitarists who want to learn to read standard notation, including basic technique, music reading, chording, fundamentals of music theory, effective practice habits, lead sheets and tablature. Students must provide their own guitar.

### **MUSIC-188** Credits: 1 **Guitar Lab 2**

A continuation of MUSIC-187. Group lesson instruction to improve music reading skills, expand chord vocabulary, scales, understanding chord progressions, finger style guitar basics and bare chords. Students must provide their own guitar. Prerequisite(s): Complete MUSIC-187.

### **MUSIC-189** Credits: 1 **Voice Lab 1**

Students learn basic vocal techniques and improve their singing ability through solo singing.

### **MUSIC-190** Credits: 1 **Choir 1**

Students develop vocal skills, learn basic note reading techniques and learn how to sing in harmony with others in a choral group that sings a variety of vocal styles such as gospel, jazz, classical and pop. Choir 1 is open to all MATC students and especially to anyone who would enjoy choral singing.

### **MUSIC-191** Credits: 3 **Performance Techniques 1**

Students will develop their performance abilities on their particular instrument(s). Solos or ensembles will be formed from the class. Students will learn through lecture, coaching, interactive discussion, preparing selections for performance, and performing music and non-music presentations. The class will emphasize learning to prepare adequately for successful performances, working successfully with other musicians, developing ensembles, musical

arranging, improving personal technical and musical abilities, proper performance etiquette, professional work ethic and attitude, and refining playing in various styles. Prerequisite(s): Complete MUSIC-163.

### **MUSIC-192** Credits: 3 **Performance Techniques 2**

A continuation of MUSIC-191. Prerequisite(s): Complete MUSIC-191.

### **MUSIC-194** Credits: 1 **Honors Ensemble**

An advanced performance group created by audition or faculty appointment. This group serves as the flagship performance group representing the department and school in various venues, and as a recording group producing CDs in collaboration with music business and recording students. With guidance from the instructor, members of the class are responsible for choosing repertoire, arranging materials, rehearsing, memorizing and performing a minimum of three department concerts per semester. Prerequisite(s): Complete MUSIC-192.

### **MUSIC-205** Credits: 3 **Music Appreciation**

This course introduces music elements such as rhythm, melody, harmony, texture in vocal and instrumentals forms to analyze and appreciate music from the 1400s to present including historical musical periods as well as contemporary popular American genres. Composers studied include Pope Gregory, Bach, Mozart, Beethoven, Brahms, Debussy, Copland, Gershwin and Joplin. This course is lecture and guided listening with analysis and discussion. Students will be required to attend concerts, listen to music and write reports.

### **MUSIC-206** Credits: 3 **History of Rock Music**

This course provides students with a survey of popular American music of the 20th century, tracing the development, evolution and maturation of musical styles, techniques and compositions. Development of analytical listening skills is a course focus.

### **MUSIC-207** Credits: 3 **Jazz History**

This course will focus principally on America's indigenous music: jazz. Course will explore the development of this music over the last 150-plus years to present. Course will explore musical, multicultural and historic perspectives, tracing the evolution of the music. Selective listening as well as analysis of rhythmic, melodic, harmonic and form structures will be a course focus. Open elective to all majors.

### **MUSIC-210** Credits: 3 **World Music Sound and Structure**

An insightful introduction to major musical traditions of the world. This course will focus on musical sound and structure in the musical genres of sub-Saharan Africa, India, Japan, Latin America and Ireland.



# NAILS – NRSPN

## NAILS – Nail Technician (Department 502)

**NAILS-340**

**Credits: 4**

### Manicuring Theory

Students who wish to qualify to take the state manicurist license examination must take this course. Instruction focuses on theory relating to law, nail and skin disorders, manicuring, pedicuring, nail enhancements, e-file, safety, sanitation, anatomy, physiology, and business management. This course includes some online assignments and tests in preparation for the online state board exam. Prerequisite(s): Must be admitted to the Nail Technician program (30-502-4).

**NAILS-342**

**Credits: 4**

### Intro: Manicuring Practicum

This course provides the theoretical and practical components related to manicuring, pedicuring, tip application, fabric wrap application, acrylic application, consultation, UV gel applications, nail art and electric filing. Students observe and practice the practical applications on artificial nails, classmates and models. Students must complete NAILS-340 prior to taking NAILS-342 or students can take NAILS-340, NAILS-342 and NAILS-343 in conjunction, or have equivalent coursework. This course includes some online assignments and tests in preparation for the online state board exam. NAILS 342 kit purchased from bookstore at the start of the semester. Prerequisite(s): Must be admitted to the Nail Technician program (30-502-4). Completion of or currently enrolled in NAILS-340.

**NAILS-343**

**Credits: 4**

### Adv: Manicuring Practicum

This course offers professional skill development in basic and artificial nail application in a salon-like setting. Students practice manicuring, pedicuring, tip, fabric, acrylic, UV gel applications, nail art and electric filing techniques on classmates and clients under the direct supervision of the classroom instructor. Students must complete NAILS-340 prior to taking NAILS-343 or students can take NAILS-340, NAILS-342 and NAILS-343 in conjunction or have equivalent coursework. Prerequisite(s): Must be admitted to the Nail Technician program (30-502-4). Completion of or currently enrolled in NAILS-340

## NRSAD – Associate Degree Nursing (Department 543)

**NRSAD-101**

**Credits: 2**

### Nursing Fundamentals

This course focuses on basic nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P).

**NRSAD-102**

**Credits: 3**

### Nursing Skills

This course focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition, the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P).

**NRSAD-103**

**Credits: 2**

### Nursing Pharmacology

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P).

**NRSAD-104**

**Credits: 2**

### Nursing: Introduction to Clinical Practice

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Completion of or currently enrolled in NRSAD-101, NRSAD-102 and NRSAD-103.

**NRSAD-105**

**Credits: 3**

### Nursing Health Alterations

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem-solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Complete NRSAD-101, NRSAD-102, NRSAD-103 and NRSAD-104.

**NRSAD-106**

**Credits: 3**

### Nursing Health Promotion

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families, we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis

is placed on teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles and stages of development. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Complete NRSAD-101, NRSAD-102, NRSAD-103 and NRSAD-104.

**NRSAD-107**

**Credits: 2**

### Nursing: Clinical Care Across Lifespan

This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Completion of or currently enrolled in NRSAD-105 and NRSAD-106.

**NRSAD-108**

**Credits: 2**

### Intro to Clinical Care Management

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management and team building. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Completion of or currently enrolled in NRSAD-105 and NRSAD-106.

**NRSAD-109**

**Credits: 3**

### Nursing Complex Health Alterations 1

Complex Health Alterations 1 prepares the learner to provide and evaluate care for patients across the lifespan with alterations in cardiovascular, respiratory, endocrine and hematologic systems as well as patients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1). RN students complete NRSAD-105, NRSAD-106, NRSAD-107 and NRSAD-108. LPN to ADN Progression students complete NRSAD-191 and must be admitted to the LPN to ADN Progression program (10-543-1.22.P).

**NRSAD-110**

**Credits: 2**

### Mental Health and Community Concepts

This course will cover topics related to the delivery of community and mental healthcare. Specific health needs of individuals, families and groups will be addressed across the lifespan. Attention will be given to diverse and at-risk populations. Mental health concepts will concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-

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1.22.P). RN students complete NRSAD-105, NRSAD-106, NRSAD-107 and NRSAD-108. LPN to ADN Progression students complete NRSAD-191.

### **NRSAD-111** **Credits: 3** **Nursing Intermediate Clinical Practice**

This intermediate-level clinical course develops the RN role when working with clients with complex healthcare needs. A focus of the course is developing skills needed for managing multiple clients across the lifespan and priorities. Using the nursing process, students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Completion of or currently enrolled in NRSAD-109, NRSAD-110 and NRSAD-112.

### **NRSAD-112** **Credits: 1** **Nursing Advanced Skills**

This course focuses on the development of advanced clinical skills across the lifespan. Content includes advanced intravenous skills, blood product administration, chest tube systems, basic electrocardiogram interpretation and nasogastric/feeding tube insertion. Prerequisite(s): Must be admitted to the Registered Nursing program (10-154-1) and take NRSAD-105, NRSAD-106, NRSAD-107 and NRSAD-108. Or must be admitted to the LPN to ADN Progression program (10-543-1.22.P) and have taken NRSAD-109, NRSAD-110 and NRSAD-191.

### **NRSAD-113** **Credits: 3** **Nursing Complex Health Alterations 2**

Complex Health Alterations 2 prepares the learner to provide and evaluate care for patients across the lifespan with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, and reproductive systems, and shock, burns and trauma. The learner will also focus on management of care for patients with high-risk perinatal conditions and high-risk newborns. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Complete NRSAD-109, NRSAD-110, NRSAD-111 and NRSAD-112.

### **NRSAD-114** **Credits: 2** **Nursing Management and Professional Concepts**

This course covers nursing management and professional issues related to the role of the registered nurse. Emphasis is placed on preparing for practice as a registered nurse. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.p). Complete NRSAD-109, NRSAD-110, NRSAD-111 and NRSAD-112.

### **NRSAD-115** **Credits: 3** **Nursing Advanced Clinical Practice**

This advanced clinical course requires the student to integrate concepts from all previous

courses in the management of groups of clients facing complex health alterations. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Completion of or currently enrolled in NRSAD-113 and NRSAD-114.

### **NRSAD-116** **Credits: 2** **Nursing Clinical Transition**

This clinical experience integrates all knowledge learned in the previous courses in transitioning to the role of the graduate nurse. The course promotes relatively independent clinical decisions and delegation, and works collaboratively with others to achieve client and organizational outcomes. Continued professional development is fostered. Prerequisite(s): Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN to ADN Progression program (10-543-1.22.P). Completion of or currently enrolled in NRSAD-113, NRSAD-114 and NRSAD-115.

### **NRSAD-191** **Credits: 2** **Nursing: Clinical Skill Development**

The course focuses on development or enhancement of clinical skills and physical assessment across the lifespan. The course includes review of mathematical calculations and conversions related to clinical skills, skills competencies and physical assessment. In addition, the nursing process, role transition and concept mapping will be presented. Prerequisite(s): Must be admitted to the LPN to ADN Progression program (10-543-1.22.P).

## **NRSNA – Nursing Assistant (Department 543)**

### **NRSNA-300** **Credits: 2** **Nursing Assistant**

This course prepares the student for employment as an entry-level caregiver in healthcare facilities such as hospitals, clinics, nursing homes and home health service. Graduates of the course are eligible to take the National Nurse Aide Assessment Program Examination and gain entry into the Wisconsin Nurse Aide Registry. This program meets all state and federal training requirements and is approved by the Wisconsin State Department of Health and Family Services. Prerequisite(s): Must be admitted to the Nursing Assistant program (30-543-1).

## **NRSPN – Practical Nursing (Department 543)**

### **NRSPN-301** **Credits: 2** **Nursing Fundamentals**

This course focuses on basic nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be

explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients

### **NRSPN-302** **Credits: 3** **Nursing Skills**

This course focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition, the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1).

### **NRSPN-303** **Credits: 2** **Nursing Pharmacology**

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

### **NRSPN-304** **Credits: 2** **Nursing: Introduction to Clinical Practice**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation and medication administration. Prerequisite(s): Completion of or currently enrolled in NRSPN-301, NRSPN-302 and NRSPN-303.

### **NRSPN-304** **Credits: 2** **Nursing: Introduction to Clinical Practice**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation and medication administration. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1).

### **NRSPN-305** **Credits: 3** **Nursing Health Alterations**

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem-solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management. Prerequisite(s): Must be admitted to Practical Nursing program (31-543-1). Complete NRSPN-301, NRSPN-302, NRSPN-303 and NRSPN-304.

# NRSPN – PHARMT

**NRSPN-306**

**Credits: 3**

## **Nursing Health Promotion**

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. Recognizing the spectrum of healthy families, we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles and stages of development. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-301, NRSPN-302, NRSPN-303 and NRSPN-304.

**NRSPN-307**

**Credits: 2**

## **Nursing: Clinical Care Across Lifespan**

This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-305 and NRSPN-306.

**NRSPN-308**

**Credits: 2**

## **Nursing: Introduction to Clinical Management**

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management and team building. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-305, NRSPN-306 and NRSPN-307.

## **NURSAD – Medical Support (Department 510)**

**NURSAD-161**

**Credits: 1**

### **Fundamentals of Medication Calculation**

This one-credit course introduces the learner to basic math strategies for calculating medication dosages. In a low-anxiety setting, the learner will review basic operations with decimals and fractions. Other topics include measurement systems and conversions, and using ratio, proportion and formula methods for dosage calculations.

## **OFTECH – Office Technology (Department 106)**

**OFTECH-101**

**Credits: 3**

### **Office Technologies 1**

Using a hands-on approach, students will be introduced to computer technology used in an office environment. Units of instruction include file management and an introduction to the latest version of MS Office applications.

**OFTECH-103**

**Credits: 1**

### **Keyboard and Keypad**

Using a computer and web-based software, students learn keyboarding using the touch method. Emphasis is placed on correct fingering skills, accuracy and speed. Passing a Challenge Exam (30 words per minute with no more than three errors on a two-minute timing) may be completed in lieu of taking this course. Contact MATC's Business and Management Pathway advisors for exam information.

**OFTECH-104**

**Credits: 3**

### **Budget Basics for Support Personnel**

Students will review basic mathematical operations and survey accounting principles and practices with an emphasis on applying them to administrative professional tasks: payroll, bank reconciliation, budgeting, accounts payable and receivable, and invoicing.

**OFTECH-111**

**Credits: 3**

### **Workplace Communications for Support Personnel**

Students in this course study the principles, strategies and techniques of effective written, oral and digital business communication. Emphasis is placed on applying grammar and mechanics to create written messages including e-mails, memos, letters, reports and resumes. Students learn productive techniques for business meetings, presentations and interviews, as well as communicating professionally in an increasingly global, digital workplace.

**OFTECH-119**

**Credits: 3**

### **Information Management**

Students learn the basic principles and procedures of creation, storage, retrieval, retention and disposal of records. The management of electronic and image records is included. Rules for alphabetic, numeric, geographic and subject filing are applied.

**OFTECH-122**

**Credits: 3**

### **Business English Essentials**

This course is designed to improve oral and written communication skills. Study of English fundamentals, including parts of speech, agreement, sentence types, and plurals and possessives, as well as rules for punctuation, capitalization, number usage, and spelling and vocabulary, are emphasized.

**OFTECH-123**

**Credits: 3**

### **Proofreading and Editing**

This course is designed to help the student improve upon proofreading and editing skills using hard copy and computerized materials. The course will also introduce the student to basic transcription skills where the student will be required to apply proper proofreading and editing techniques. Prerequisite(s): Complete OFTECH-122, with a grade of C or higher, and OFTECH-133.

**OFTECH-133**

**Credits: 3**

### **Business Document Production 1**

This course is designed to enhance keyboarding skills and to develop basic document formatting

techniques while applying decision-making skills. Students will demonstrate specific document formatting and keying speed competencies. Prerequisite(s): Complete OFTECH-103.

**OFTECH-137**

**Credits: 3**

### **Business Document Production 2**

Students acquire proficiency in producing documents, editing and composing more complicated business documents, making decisions, following directions, and performing realistic office tasks through simulation. Prerequisite(s): Complete OFTECH-133.

**OFTECH-153**

**Credits: 1**

### **Collaboration Tools**

Students will learn, compare and analyze the successful use of collaboration and social media tools used in organizations today. Topics include online calendaring, online document editing and file sharing, social media, and video conferencing. Prerequisite(s): Complete OFTECH-105 or COMPSW-106.

**OFTECH-165**

**Credits: 3**

### **Administrative Office Procedures 1**

This course is designed to develop administrative professional skills and attitudes needed in today's global business environment. Topics include communicating in a business environment, making ethical decisions, working independently and as a team member, and managing time. Learners are introduced to meeting, travel and event planning, mail processing, telecommunications, and ergonomics. Prerequisite(s): Complete OFTECH-122 and OFTECH-133.

**OFTECH-170**

**Credits: 3**

### **Meeting Event Plan Support Personnel**

This course introduces students to the basics of project planning as an administrative assistant. Students plan and execute meetings and business events. Meeting and event preplanning activities, facilitating events, producing meeting/event documentation, coordinating equipment, facility, and food and beverage needs will be discussed. Students plan travel for business executives as well as prepare a travel itinerary. Prerequisite(s): Complete OFTECH-101 and OFTECH-122.

**OFTECH-182**

**Credits: 3**

### **Customer Service Skills**

Students will receive an introduction to customer service principles including the concepts and practices needed by today's support personnel for providing effective customer satisfaction in any business organization domestic or international. Customer service strategies covered in this course include effective listening, oral and written communication; analytical and problem-solving skills; and teamwork.

**OFTECH-183**

**Credits: 3**

### **Bilingual Customer Service Skills**

Overview of the behavior exhibited by successful customer service professionals featuring simulated business settings. Includes conventional behaviors of the workplace, professional



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communication in the customer service setting, grooming and clothing for a business setting, telephone and email etiquette basics, effective answers to sales questions, punctuality and the work ethic, professionalism in the workplace, basic qualitative activities, behavior with co-workers, customer service challenges, exceptional customer service, and career advancement strategies in customer service. In addition, learners will study and train in organizational communication within a multicultural global environment. interpersonal communication skills in a culturally diverse workforce.

### **OFTECH-184** **Credits: 3** **MS Office: Word, Excel, Access and PowerPoint**

This course offers skill development in PowerPoint and items such as multiple-page documents with attributes, spreadsheet with formulas and functions, database with tables, queries, forms/reports, presentations, internet, and email. Prerequisite(s): Complete OFTECH-101.

### **OFTECH-185** **Credits: 3** **MS Office – Intermediate**

This course offers skill development in intermediate and integrated applications in Word, Excel, Access, PowerPoint and other technologies including online networking tools. Prerequisite(s): Complete OFTECH-184.

### **OFTECH-190** **Credits: 1** **Bilingual Office Assistant Internship**

This course will be a cooperative training program that allows bilingual students to utilize skills and knowledge in an approved business office, under the supervision and guidance of a teacher and a cooperating employer, that serves a diverse population. Prerequisite(s): Complete OFTECH-183 and INTRN-796 with a grade of C or higher.

### **OFTECH-196** **Credits: 1** **Administrative Professional Internship**

This course is a cooperative training program that allows students to utilize skills and knowledge in an approved business office, under the supervision and guidance of a teacher-coordinator and a cooperating employer. Prerequisite(s): Complete INTRN-796. Completion of or currently enrolled in OFTECH-165 and OFTECH-184.

## **OTASST – Occupational Therapy Assistant (Department 514)**

### **OTASST-171** **Credits: 3** **Introduction to Occupational Therapy**

Provides an overview of history, philosophy, ethics and scope of occupational therapy practice. The course examines legal responsibilities, professional resources and organization. Students practice basic skills related to therapeutic relationships and determine their own suitability to a career in occupational therapy. Prerequisite(s): Must be admitted to the Occupational Therapy Assistant program (10-514-1).

### **OTASST-172** **Credits: 3** **Medical and Psychosocial Conditions**

This course introduces medical and psychosocial conditions as they relate to occupational therapy practice. Topics include etiology, symptomology, treatment and contraindications. Prerequisite(s): Must be admitted to the Occupational Therapy Assistant program (10-514-1). Completion of or currently enrolled in OTASST-171 and OTASST-173.

### **OTASST-173** **Credits: 2** **Activity Analysis and Application**

Provides instruction in activity analysis with hands-on experience in activities across the lifespan. Students apply the teaching/learning process and adhere to safety regulations. Prerequisite(s): Must be admitted to the Occupational Therapy Assistant program (10-514-1).

### **OTASST-174** **Credits: 4** **OT Performance Skills**

The emphasis of this course is on the development of skills related to assessment and intervention in the areas of sensory, motor, cognition and communication. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

### **OTASST-175** **Credits: 3** **Psychosocial Practice**

Examines the role of the OTA in the service delivery to individuals affected by mental health conditions. Provides an opportunity for development of skills related to psychosocial assessment and interventions. Prerequisite(s): Complete OTASST-174, OTASST-176 and OTASST-178.

### **OTASST-176** **Credits: 3** **OT Theory and Practice**

Examines the theoretical foundations that guide OT practice. Apply group dynamics and demonstrate leadership skills. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

### **OTASST-178** **Credits: 3** **Geriatric Practice**

This course provides opportunities for the learner to examine the role of the OT in the service delivery to elders in a variety of settings. The course includes analysis of the impact of age-related changes and disease processes on the function of the elderly. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

### **OTASST-179** **Credits: 2** **Community Practice**

Explores practice options and interventions for occupation-based community practice. Students articulate the unique role of occupational therapy within the community. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

### **OTASST-184** **Credits: 2** **OTA Fieldwork I**

Integrate classroom theory and practice into a fieldwork Level I experience. Provides experiences to assist in the development of

communication, professional and observational skills. Prerequisite(s): Completion of or currently enrolled in OTASST-175, OTASST-189 and OTASST-190.

### **OTASST-185** **Credits: 2** **OTA Practice and Management**

Provides opportunities to practice clinical management skills, continuous quality improvement measurement, and administrative concepts and procedures. Students create a professional development plan. Prerequisite(s): Complete OTASST-175, OTASST-179, OTASST-189, OTASST-190 and OTASST-184.

### **OTASST-186** **Credits: 5** **OTA Fieldwork 2A**

Develop skills and behaviors necessary for entry-level occupational therapy assistant practice. Provides a different clinical practice setting than OTA Fieldwork 2B. Prerequisite(s): Complete OTASST-175, OTASST-179, OTASST-184, OTASST-189 and OTASST-190.

### **OTASST-187** **Credits: 5** **OTA Fieldwork 2B**

Develop skills and behaviors necessary for entry-level occupational therapy assistant practice. Provides a different clinical practice setting than OTA Fieldwork 2A. Prerequisite(s): Completion of or currently enrolled in OTASST-185 and OTASST-186.

### **OTASST-189** **Credits: 4** **OT Physical Rehab Practice**

Explores interventions relative to major physical disability diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized relative to the biomechanical, neurodevelopmental and rehabilitative approaches to practice. Prerequisite(s): Complete OTASST-174, OTASST-176 and OTASST-178.

### **OTASST-190** **Credits: 4** **OT Pediatric Practice**

Explores interventions relative to major pediatric diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized within the context of the child's occupations. Prerequisite(s): Complete OTASST-174, OTASST-176 and OTASST-178.

## **PHARMT – Pharmacy Technician (Department 536)**

### **PHARMT-300** **Credits: 1** **Orientation to Pharmacy Operations**

Technical aspects of pharmacy are introduced with special emphasis on community pharmacy practices. Topics include drug distribution systems, routes of administration, dosage forms, drug standards, label format, prescription processing, prescription insurance, inventory and nonsterile compounding. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).



# PHARMT – PHYED

## PHARMT-302 Credits: 2

### Pharmaceutical Calculations

Basic math computations are reviewed, including addition, subtraction, multiplication and division of whole numbers, fractions and decimals. The course covers specific areas of the avoirdupois, apothecary and metric systems of measurement used in dosage calculations. Formulas and methods used in the preparation of pharmaceutical products are presented. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

## PHARMT-303 Credits: 2

### Introduction to Drug Classification

This course introduces the principles of pharmacology, including therapeutic classification of medications, their actions and adverse reactions. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

## PHARMT-306 Credits: 2

### Pharmacy Clinical Experience 1

This course provides practical application of knowledge and technical skills covered in didactic and laboratory portions of the program. Students observe, assist and perform assigned duties in a community pharmacy setting. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307, PHARMT-395 and HEALTH-107. Completion of or currently enrolled in HEALTH-104.

## PHARMT-307 Credits: 1

### Community Pharmacy Lab

This laboratory course applies theory through performance of technical pharmacy tasks in a community pharmacy setting. Emphasis is on outpatient prescription processing. Prerequisite(s): Must be admitted to Pharmacy Technician program (31-536-1). Completion of or currently enrolled in PHARMT-300, PHARMT-302, PHARMT-303 and PHARMT-395.

## PHARMT-310 Credits: 1

### Institutional Pharmacy Practice

Topics specific to institutional pharmacy practice are presented. In addition, the course assists students to prepare for employment as a pharmacy technician. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395.

## PHARMT-312 Credits: 3

### Pharmacy Operations Laboratory

This laboratory course applies theory through performance of technical pharmacy tasks in an institutional pharmacy setting. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395.

## PHARMT-314 Credits: 2

### Pharmacy Clinical Experience 2

This course provides the practical application of knowledge and technical skills covered in didactic and laboratory portions of the program. Students

observe, assist and perform assigned duties in an institutional pharmacy setting. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-395, HEALTH-107 and PHARMT-307. Completion of or currently enrolled in PHARMT-310, PHARMT-311, PHARMT-312 and PHARMT-306.

## PHARMT-315 Credits: 1

### Advanced Pharmacy Tech Lab

This laboratory course applies theory through performance of technical pharmacy tasks. Emphasis is on advanced pharmacy technician roles. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1). Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395.

## PHARMT-317 Credits: 1

### Orientation to Sterile Solutions

This course focuses on introductory material related to techniques for safe preparation of sterile solutions. Application of basic principles of microbiology, aseptic technique and the operation of both the vertical and horizontal laminar flow hoods to acceptable pharmacy practice standards is presented. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395.

## PHARMT-395 Credits: 1

### Federal Laws, Ethics and Customer Service

This course introduces the student to the practice of pharmacy and includes the history of the profession and a description of the roles of the pharmacist and the pharmacy technician in various practice settings. Federal laws, ethics, professional standards and customer service are addressed. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

## PHOTO – Photography (Department 203)

## PHOTO-100 Credits: 1

### Introduction to Digital Photography

Using a digital camera to create consistent and good photographs requires knowledge and understanding of complex skills. If you have little experience with your camera, these can be daunting. Setting the proper shutter speed and knowing how different aperture settings, or ISO, affect your image is critical to successful photography. Knowing how to achieve proper digital files with your camera is an important step in this process. Learn to select the right lens and to properly plan how you compose photographs. Having photographs printed will be discussed.

## PHOTO-101 Credits: 3

### Digital Fundamental Photography

Students will use their digital SLR camera to develop their creative thoughts while learning the technical and mechanical aspects of photography. Students are required to own a Canon or Nikon DSLR with manual exposure controls, adjustable apertures and shutter speeds, and interchangeable lens capabilities.

## PHOTO-103 Credits: 3

### Digital Photography

The theory and application of professional digital original photography will be studied. Students will use assorted high-end professional digital camera systems and output images via professional caliber, continuous-tone, digital printing systems. Prerequisite(s): Complete PHOTO-108, PHOTO-139, PHOTO-141 and PHOTO-130.

## PHOTO-106 Credits: 3

### View Camera Techniques

Students will learn how to use a view camera to control the perspective, form and rendition of photographic subjects. Also emphasized are elements of composition and visual organization of the photographic image. Additionally, students learn black-and-white film processing, scanning, inkjet printing and finishing techniques. Prerequisite(s): Complete PHOTO-108, PHOTO-139, PHOTO-130 and PHOTO-141.

## PHOTO-107 Credits: 1

### Photographic Trends

Photography has been used to create portrait and pictorial photographs, record history-making events and influence social change. To understand how the medium has evolved, students learn about important photographs and the photographers who created them.

## PHOTO-108 Credits: 3

### Photographic Lighting

Many light sources are used in professional photography, including natural, incandescent and electronic flash. Students learn the theory of these and other light sources and become competent in their use through practical application. Prerequisite(s): Complete PHOTO-101.

## PHOTO-114 Credits: 3

### Photographic Portfolio

This course is designed as the keystone to the completion of the Photography program. The thrust is the development of a working portfolio in preparation for employment. The resume, interviewing and job search techniques, as well as business basics, are also stressed. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142.

## PHOTO-121 Credits: 3

### Commercial Photography

Effective photography for advertising requires special considerations, including psychological motivation and appeals used in selling. In addition, students learn how to control subject form and tonality and the function of the photographer as director. Both film and digital processes will be incorporated. Prerequisite(s): Complete PHOTO-108, PHOTO-139 and PHOTO-130.

## PHOTO-124 Credits: 3

### Portraiture

Students work with a variety of subjects in both studio and location settings to produce pleasing likenesses and character studies. Dealing with people as subjects in a relaxed fashion and

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photographer/subject interaction are stressed. The presentation of the final product is also covered. Prerequisite(s): Complete PHOTO-108, PHOTO-139, PHOTO-141 and PHOTO-130.

### **PHOTO-125 Credits: 2** **Conceptual Photography Projects**

This course will help students focus on one photographic project that will be conceived, developed and finished in book form. Students will produce a new cohesive group of images created specifically for this class. This class is for a hobbyist, aspiring professionals, fine art photographers or professionals intending to produce a “personal” project. Prerequisite(s): Complete PHOTO-101, PHOTO-141, PHOTO-107, PHOTO-130 and PHOTO-108.

### **PHOTO-130 Credits: 3** **Photographic Composition**

This course is designed as a critical study of traditional/contemporary composition considerations and of the importance of the photographic critique. Students will be dealing with a photographic dialogue that will emphasize the visual elements and effects of color, line, value, texture, volume, time and form. Prerequisite(s): Complete PHOTO-101.

### **PHOTO-139 Credits: 3** **Measurement Techniques**

Students learn to control photographic technique by utilizing the digital zone system. This controlled system will enable students to accurately pre-visualize the finished photograph before capture. Emphasis is on the testing of light meters, camera sensors, lenses and setting up of a calibrated workflow with their own DSLR camera. Once a calibrated system is in place, proper workflows will allow accuracy from capture to final output. Prerequisite(s): Complete PHOTO-101.

### **PHOTO-141 Credits: 3** **Photoshop for Photographers 1**

Photoshop for Photographers 1 is a fundamental Photoshop course. Emphasis is placed on Photoshop tools and techniques, color theory, and understanding preference settings. Students will use a digital camera to develop their awareness of color and enhance their technical skills. Photoshop and other digital imaging editing software and film scanning are introduced using professional equipment.

### **PHOTO-142 Credits: 3** **Photoshop for Photographers 2**

Photoshop for Photographers 2 is an advanced Photoshop course. Students continue to develop skills utilizing Photoshop tools and apply color management, compositing and planning into multilayered projects. Students use digital cameras to develop awareness of color control and to enhance technical skills. Emphasis is placed on complex Photoshop composites and advanced selection methods. Prerequisite(s): Complete PHOTO-141.

### **PHOTO-166 Credits: 1** **Photographic Management**

This course is designed to provide students with the basic understanding of the activities and principles for managing photography-related enterprises, including the challenges and responsibilities of operating a business. The emphasis is on communication skills, estimating, management, marketing, finance and negotiation. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142.

### **PHOTO-173 Credits: 3** **Photo Journalism**

This course is designed to develop the necessary skills to make concise photos that convey a message, either news or documentary, with emphasis placed on the deadline nature of photo journalism. Topics include ethical and legal considerations and the electronic darkroom. Prerequisite(s): Complete PHOTO-108 and PHOTO-139.

### **PHOTO-180 Credits: 3** **DSLR Video**

Lectures outline the work performed by in-house industrial or corporate photographers. Studio and location assignments enforce the skills required to function in today’s commercial climate. Students incorporate color and black-and-white film media, as well as digital capture methods, to complete assignment work. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142.

### **PHOTO-190 Credits: 1** **Photography Internship**

This course is designed to offer the advanced photography student an opportunity to experience “real-life” work situations in the photographic community. Students will share their on-the-job experiences with the class. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142. Complete INTRN-796 with a grade of C or higher.

## **PHYED – Physical Education (Department 807)**

### **PHYED-203 Credits: 1** **Hatha Yoga for Wellness 1**

This Hatha Yoga class focuses on a path towards wellness. It includes postures and meditation techniques that are designed to develop symmetry and balance for the body, mind and spirit. Its exercise disciplines create challenges for self-improvement and control of stress.

### **PHYED-210 Credits: 3** **An Active Approach to Wellness and Fitness**

This lecture and lab course provides students with a contemporary approach to the total wellness concept, which includes physical fitness, exercise, nutrition and stress management. The relationship of physical fitness and activity to healthy lifestyles and wellness is examined. Students also learn CPR, make realistic appraisals of their health, and identify and use physical techniques and wellness concepts to develop personal plans for lifetime wellness.

### **PHYED-233 Credits: 1** **Stretch and Stability Techniques**

Instruction is given in basic fundamentals and techniques of stretch exercises set to music. This involves a full range of muscle activity, with emphasis on body mechanics, flexibility and body toning.

### **PHYED-245 Credits: 1** **Cardiopulmonary Resuscitation (CPR) and First Aid**

This course develops skills needed to certify individuals in the techniques for rescue breathing, choking emergencies and other related breathing emergencies. The skills will also include training for resuscitation of the adult, child and infant along with proper techniques in two-person CPR, use of masks for rescue breathing and the proper instruction of an automated external defibrillator (AED). Successful course completion will give the individual office certification in CPR/AED for the Professional Rescuer and certification in First Aid Basics.

### **PHYED-248 Credits: 1** **Weight Training and Aerobic Fitness 1**

This course provides an individualized approach to various types of weight resistance training and aerobic conditioning. Specific training using machines, free weights and floor exercises is included. A diverse variety of cardiovascular exercise methods is also covered.

### **PHYED-249 Credits: 1** **Weight Training and Aerobic Fitness 2**

This course provides students with advanced strategies to improve their overall fitness. Included are demonstrations and activities involving warm-up procedures, stretching, resistance training, aerobic training and recovery.

### **PHYED-255 Credits: 1** **Body Toning and Resistance Training 1**

Specific techniques of body toning, along with progressive resistance exercises, are the focus of this course. A series of rhythmic exercises are taught to enhance muscular specificity for developing body shaping and muscular endurance, and to improve physical appearance.

### **PHYED-256 Credits: 1** **Body Toning and Resistance Training 2**

This course is designed to teach advanced strategies of body toning and progressive resistance training. Select exercises are presented to enhance muscular specificity for developing body shaping and muscular endurance to improve physical appearance, as well as prepare for the physical demands of everyday living.

### **PHYED-266 Credits: 1** **Earth-Friendly Fitness**

In this course, students explore and participate in practical green (Earth-friendly) physical activities that help to utilize human energy to reduce our carbon footprint from mechanical and industrial behaviors.

# PHYED – POLICE

**PHYED-268** Credits: 1

## **Fitness Walking 1**

This course introduces proper guidelines and techniques used in indoor and outdoor fitness walking. Students will learn proper walking mechanics and develop a lifelong walking program. Various forms of walking and related exercises are presented.

## **PHYS – Physical Science (Department 806)**

**PHYS-139** Credits: 3

### **Survey of Physics**

This course emphasizes understanding basic physics concepts through laboratory investigation and applications. Topics include kinematics, dynamics, work, energy, power, temperature, heat, waves, electricity, magnetism, electromagnetic waves, optics, and atomic and nuclear physics.

**PHYS-221** Credits: 4

### **College Physics 1**

College Physics 1 is a first-semester physics course to study the principles of mechanics and heat. Calculus is not required. Laboratory work involves the analysis of data using computers. Prerequisite(s): Complete MATH-202 or MATH 230.

**PHYS-222** Credits: 4

### **College Physics 2**

This is a second-semester physics course to study the principles of electricity, magnetism, light, optics and the basics of modern physics. Lab work will include experiments related to the above topics and data analysis via computer. Calculus is not required. Prerequisite(s): Complete PHYS-221.

**PHYS-225** Credits: 3

### **Introductory Astronomy**

This introductory course covers the principles, theories and understandings related to astronomy. Topics to be covered include the history of astronomy, telescopes, the earth and the solar systems, the sun as a star, and other stars, galaxies, and theories of the universe.

**PHYS-226** Credits: 1

### **Observational Astronomy**

This course is designed to provide hands-on experience in the application of the laws of physics to astronomy. Using computers, as well as other technological instruments in the field of astronomy, students observe phenomena and experience astronomical events. This course focuses on identification of the tools of astronomy and their use in solving basic problems in astronomical theory. This laboratory should be taken only in conjunction with, or subsequent to, GEOSCI-225.

**PHYS-274** Credits: 4

### **Calculus-Based Physics 1**

This is the first part of a two-part sequence of calculus-based physics for prospective engineering students. Topics covered include

theoretical and experimental treatment of motion, material properties, fluids, and heat. Prerequisite(s): Completion of or currently enrolled in MATH-232.

**PHYS-275** Credits: 4

### **Calculus-Based Physics 2**

This is the second part of a two-part sequence of calculus-based physics. Topics include electricity, magnetism, optics and some modern physics. Prerequisite(s): Complete PHYS-274 with a grade of C or higher.

## **PLEGAL – Paralegal (Department 110)**

**PLEGAL-101** Credits: 3

### **Introduction to Paralegalism**

This course offers an orientation to the American judicial system, the growth and development of the paralegal profession, ethics, and skills required to practice such as interviewing, investigation, legal reasoning, and writing and document preparation.

**PLEGAL-103** Credits: 3

### **Legal Research**

This course provides an understanding of the law library through projects that develop research skills by using digests, legal encyclopedias, reporter systems, treatises and practice manuals. Students also become familiar with computerized legal research. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-105** Credits: 3

### **Civil Procedure**

This course covers the fundamental principles used in civil litigation. Students apply the procedural concepts discussed by reviewing forms and drafting pleadings and other documents used in civil litigation. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-107** Credits: 3

### **Legal Writing**

This course involves the use of principles that apply to effective legal writing. Students draft memoranda, briefs, letters and other forms of correspondence to gain skills in communicating legal concepts in various areas of the law. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-111** Credits: 3

### **Litigation Practice Systems**

This course is a study of the procedures involved and the documents that may be used in a civil lawsuit prior to filing, during the resolution of the matter and after the judgment. Included in the study is the paralegal's role in interviewing

and investigative techniques, settlement procedures and trial preparation. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-114** Credits: 3

### **Trusts and Estates – Probate Systems**

Students learn the fundamental principles of estate planning, wills and trusts, as well as the essential processes of formal and informal probate using Wisconsin law as a perspective. Estate and gift taxation are also explored by the student. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-116** Credits: 3

### **Real Estate Law and Practice**

This course examines the law of real property, real estate interests, transactions and processes. Forms used in Wisconsin real estate transactions will be used. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-118** Credits: 3

### **Criminal Practice**

The course concentrates on the sources and purposes of criminal law, the meaning of criminal responsibility, elements of crimes, defenses, and criminal procedures. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-121** Credits: 3

### **Domestic Relations and Divorce Practice Systems**

This course is a study of actions that affect the family such as divorce, legal separation, annulment, paternity and adoption. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-123** Credits: 3

### **Corporate Practice Systems**

Students are introduced to the various types of business organizations with special emphasis on the limited liability company and the corporation. Topics include formation of a business entity, required recordkeeping, securities regulations and organizational maintenance. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

**PLEGAL-127** Credits: 3

### **Debtor-Creditor Law**

This course examines the law of relating to creation of debt, collection of debt and bankruptcy. Forms used in Wisconsin collection practice and U.S. Bankruptcy Court will be used.



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Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

## **PLEGAL-140** Credits: 3 **Legal Interviewing/Investigation**

This course instructs students how to access public records, interview witnesses, locate missing persons and use the internet as an investigative tool. Prerequisite(s): Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2). Complete PLEGAL-101.

## **PLUMB – Plumbing** **(Department 427)**

### **PLUMB-300** Credits: 3 **Plumbing Theory 1**

This fundamental course presents the theory of basic methods of plumbing and piping installation practices. It is intended to complement the course PLUMB-302 Plumbing and Piping Shop 1.

### **PLUMB-301** Credits: 2 **Applied Drawing for Plumbers 1**

This course covers basic principles that are essential for visualization and training in the interpretation of blueprints and freehand sketches of simpler plumbing and piping jobs. This includes drawing scales, piping symbols and architectural symbols.

### **PLUMB-302** Credits: 3 **Plumbing and Piping Shop 1**

Students will be able to apply the knowledge they have gained and the skills they have learned to practical design and construction of complete plumbing installations. They will also be able to develop systemized methods of plumbing installation practices, as well as learn the use and care of plumbing fixtures, appliance equipment and power tools.

### **PLUMB-304** Credits: 3 **Plumbing Theory 2**

This course is designed to present the general rules, definitions and principles of the Uniform Wisconsin State Plumbing Code. Students will learn about the code and its regulations. Additionally, students learn the design and installation of various plumbing systems. Prerequisite(s): Complete PLUMB-300.

### **PLUMB-305** Credits: 2 **Plumbing and Pipe Joining Process 2**

This course is designed to provide students with advanced pipe joining processes associated with the plumbing field. Specifically, students learn fundamentals of ARC welding, gas welding and wire welding. The course also includes plastic pipe joining methods for potable water, waste and vent systems. Prerequisite(s): Complete PLUMB-308.

### **PLUMB-306** Credits: 3 **Plumbing and Piping Shop 2**

This course is designed to provide students with an opportunity to apply plumbing practices in a shop or actual work setting. The course requires students to combine theory and drawing skills to demonstrate their installation ability. Prerequisite(s): Complete PLUMB-302.

### **PLUMB-308** Credits: 2 **Plumbing and Pipe Joining Process 1**

This course is designed to provide students with basic pipe joining processes associated with the plumbing field. Specifically, students will learn the fundamentals of cutting, reaming, threading, soldering and brazing. The course also includes oxygen/acetylene cutting methods.

### **PLUMB-309** Credits: 2 **Applied Drawing for Plumbers 2**

This course is designed to provide students with experience in drawing. This includes design and layout work, which then leads students to plan view elevations and isometric drawings. Prerequisite(s): Complete PLUMB-301.

### **PLUMB-312** Credits: 1 **Computer Applications/Plumbing**

This course is designed to provide students word processing, PowerPoint, spreadsheet and internet skills. Students will have an opportunity to apply computer skills in various learning activities.

## **POLICE – Police Science** **(Department 504)**

### **POLICE-144** Credits: 3 **Law Enforcement Internship 1**

This course provides students with the opportunity to observe, identify and possibly assist in law enforcement theory, skills and techniques covering the broad spectrum of law enforcement issues, including problem-solving tools, legal procedures and avenues within the law enforcement community. All students must submit to a criminal background check and driver's license check, and provide medical documentation of fitness signed by a physician prior to participation in this course. Prerequisite(s): Complete CJS-900, CJS-901 and CJS-902 with a grade of C or higher.

### **POLICE-386** Credits: 2 **Application of Traffic Response**

Through classroom lecture, on-campus lab and Wisconsin Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the Wisconsin Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement-Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

### **POLICE-500** Credits: 2 **Overview of Patrol Response**

The 720-hour Police Academy Phase I - Overview of Patrol Response topics include Critical Thinking and Decision Making (8 hours), Basic Response (2 hours), Radio Procedures (2 hours), Introduction to TraCS (2 hours), Traffic Law Enforcement (12 hours), First Aid/CPR/AED (12 hours class/12 hours lab) Phase I Fitness (8 hours lab), Integration Exercises (4 hours lab), Physical Fitness Readiness Test (2 hours lab).

### **POLICE-501** Credits: 1 **Physical Fitness**

Through classroom lecture and on-campus lab, students will apply Phases I-III Physical Fitness Wisconsin Department of Justice 720 Academy curriculum framework program requirements and Officer Wellness Suicide Prevention.

### **POLICE-502** Credits: 1 **Application of Investigations**

Through classroom lecture, on-campus lab and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Phase III topics of the Wisconsin Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Conduct, Cultural Competence II, Interrogations, Testifying in Court, Crimes III and Physical Evidence Collection.

### **POLICE-503** Credits: 1 **Overview of Criminal Justice**

This 720-hour Police Academy Phase I - Overview of Criminal Justice topics include Academy Orientation (2 hours), Fundamentals of Criminal Justice (8 hours), Ethics (4 hours) Cultural Competence (4 hours), Agency Policy, Professional Communications (12 hours), and Integration Exercises (2).

### **POLICE-504** Credits: 2 **Principals of Emergency Vehicle Response**

Through classroom lecture on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

### **POLICE-505** Credits: 2 **Sensitive Crimes**

This 720-hour Police Academy Phase III-Sensitive Crimes topics include Domestic (16 hours), Juvenile Law (8 hours), Victims (8 hours), Sexual Assault (12 hours), Child Maltreatment (8 hours), Integration Exercises (4 hours), and Written Exam Phase III (4 hours).

### **POLICE-506** Credits: 2 **Overview of Investigations**

This 720-hour Police Academy Phase I-Overview of Investigations topics include Constitutional Law (20 hours), Crimes I (6 hours), Interviews (6 hours class/6 hours lab), Report Writing (16 hours), and Integration Exercises (2 hours lab).



# POLICE – PTASST

**POLICE-507** Credits: 3

## Application of Traffic Response

This 720-hour Police Academy Phase III-Application of Traffic Response topics include Traffic Law Enforcement/CORE and Radar (8 hours class/16 hours lab), Traffic Crash Investigations and TIM (8 hours class/8 hours lab), OWI/SFST (4 hours class/32 hours lab), Hazardous Materials and WMD (4 hours), Incident Command System and NIMS (2 hours), Report Writing (4 hours), and Integration Exercises (4 hours lab).

**POLICE-508** Credits: 1

## Principles of Investigation

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Phase II topics of the Wisconsin Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collection, and Crisis Management. The Phase II Written Exam will be given in this course.

**POLICE-509** Credits: 5

## Principles of Tactics

This 720-hour Police Academy Phase II-Principles of Tactics include Professional Communications (12 hours), Defensive Tactics 54 hours), Firearms II (52 hours), Tactical Response (24 hours), Tactical Emergency Casualty Care (8 hours), Integration Exercises (12 hours).

**POLICE-510** Credits: 1

## Overview of Tactics

This 720-hour Police Academy Phase I-Overview of Tactics topics include Fundamentals of Firearms (4 hours class/ 12 hours lab), Vehicle Contacts (12 hours), Officer Wellness (4 hours), Defense and Arrest Tactics (4 hours class/2hours lab), and Integration Exercises (4 hours lab).

**POLICE-511** Credits: 1

## Scenario Assessment

The final 40 hours of the academy curriculum will consist of six training scenarios and four testing scenarios.

## POWENG – Power Engineering (Department 428)

**POWENG-330** Credits: 1

### Low Pressure Boilers

This course covers the basic operation of low pressure boilers and prepares the student for a Facilities Operating license 3rd Class (low pressure boiler license up to 15 psi). Curriculum includes boiler systems-fuel, draft, steam and feedwater. Absorption chillers, hot water boiler systems and operating procedures are covered. Licensing agency is the American Society of Power Engineers.

**POWENG-331** Credits: 2

### High Pressure Boilers

This class will prepare students to write the American Society of Power Engineers Facility Operating 2nd class licensing exam. The High Pressure Boilers class will also prepare students to recognize boiler terminology, comprehend feedwater, steam, fuel and draft systems. Students will learn heat transfer principles using air heaters, shell and tube heat exchangers, steam, and radiant heat. Basic electricity, boiler operation, water treatment programs, cooling towers, traps, strainers and burner management systems.

**POWENG-332** Credits: 1

### Boiler Operation

Students will have a comprehensive understanding of boiler operations, from routine checks and maintenance to problem-solving and safety protocols. This blend of theoretical knowledge and hands-on experience will prepare the learner for roles as a Class 2 Facility Operating Engineer. In alignment with American Society of Power Engineers (ASOPE) guidelines, the successful completion of this course will be recognized as one year of experience.

**POWENG-333** Credits: 3

### Plant Maintenance and HVAC Basics

A hands-on class for repairing, maintaining and troubleshooting equipment found in commercial and industrial settings. Training includes belt drives, (alignment, tension and care of belts), chain drives, fans, couplings, motor alignments, bearing removal and installation, lubrication, solenoid valves, packing, gaskets, regulating valves, piping, air compressors, pumps, and other mechanical fundamentals.

**POWENG-334** Credits: 1

### Blueprint Reading for Power Engineering

Building blueprints are studied along with symbols and piping diagrams. Students will be able to locate and identify common building systems. Some mechanical assembly prints will also be covered.

**POWENG-335** Credits: 3

### Instrumentation and Controls

This course covers a wide variety of boiler and HVAC controls. Thermostats, pneumatic and electronic controls, building automation systems, pressure transmitters, thermocouples, and gauges are just some of the instrumentation covered in this class.

**POWENG-336** Credits: 1

### Math for Power Engineers

This class contains practical applications commonly used in a variety of industries and trades. The class covers math concepts and how they are applied in boiler operation, HVAC, construction and manufacturing. Measuring in whole numbers and fractions are studied. Percentages and word problems are geared toward the everyday situations the working man finds him/herself in. Weekly quizzes and a comprehensive final exam are part of the learning experience.

**POWENG-395** Credits: 3

### Electricity for Power Engineering

Basic fundamentals of electricity in the power engineering field of facility maintenance, equipment operation and repair, and power generation.

## PSYCH – Psychology (Department 809)

**PSYCH-159** Credits: 3

### Abnormal Psychology

The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations and elements of psychological wellness.

**PSYCH-188** Credits: 3

### Developmental Psychology

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

**PSYCH-198** Credits: 3

### Introduction to Psychology

This science of psychology course is a survey of multiple aspects of behavior and mental processes. It provides an overview of topics such as research methods, theoretical perspectives, learning, cognition, memory, motivation, emotions, personality, abnormal psychology, physiological factors, social influences, and development.

**PSYCH-199** Credits: 3

### Psychology of Human Relations

Explores the relationship between the general principles of psychology and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding enables students to improve their relationships with others at work, in the family and in society.

**PSYCH-230** Credits: 3

### Cultural Psychology

This course is designed to provide a survey of psychological issues across a variety of cultures. Students will analyze how different aspects of culture affect human behavior, emotion and cognition, and consider a variety of issues that are relevant to understanding and relating to people who are culturally different from one another. Prerequisite(s): Complete PSYCH-199, PSYCH-231 or PSYCH-238

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

**PSYCH-231** Credits: 3

### **Introductory Psychology**

This introductory psychology course presents a contemporary survey of the multiple aspects of human behavior. It includes various theoretical foundations of human functioning in areas such as methodology, physiological factors, memory, human development, motivation, stress management, personality and pathology.

**PSYCH-232** Credits: 3

### **Abnormal Psychology**

This course surveys systematically the essential features, possible causes, assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

**PSYCH-233** Credits: 3

### **Social Psychology**

This course deals with perception, attitudes, values, communication and roles with relation to the community. Various contemporary social problems are examined, including racism. Emphasis is given to the sociology and psychology concerned with groups. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

**PSYCH-237** Credits: 3

### **Child Psychology**

Students are introduced to children's behavioral development from conception to adolescence. A comprehensive view of the child at each stage of growth is presented with the main focus on the interaction of heredity, physical constitution, maturation and socioenvironmental factors. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

**PSYCH-238** Credits: 3

### **Lifespan Psychology**

Lifespan Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

**PSYCH-240** Credits: 3

### **Health Psychology**

Students examine how psychosocial and behavioral factors influence health and disease processes. They will also analyze the relationship of individual and environmental factors to the development and management of specific diseases. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

**PSYCH-270** Credits: 3

### **Educational Psychology**

Educational Psychology is the study of how students learn, the effectiveness of particular teaching techniques, the dynamics of school populations, and the psychology of teaching.

## **PTASST – Physical Therapy Assistant (Department 524)**

**PTASST-139** Credits: 4

### **PTA Patient Interventions**

An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant. Prerequisite(s): Must be admitted to the Physical Therapist Assistant program (10-524-1).

**PTASST-140** Credits: 2

### **PTA Professional Issues 1**

Introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary health care team, and professional communications skills. Prerequisite(s): Must be admitted to the Physical Therapist Assistant program (10-524-1).

**PTASST-142** Credits: 3

### **PTA Therapeutic Exercise**

Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt and assess responses to therapeutic exercises. Prerequisite(s): Complete PTASST-156 and either BIOSCI-177 or both BIOSCI-201 and BIOSCI-202.

**PTASST-143** Credits: 4

### **PTA Biophysical Agents**

Develops the knowledge and technical skills necessary to perform various biophysical agents likely to be utilized as a PTA. Prerequisite(s): Must be admitted to the Physical Therapy Assistant program (10-524-1). Complete PTASST-139 and PTASST-156.

**PTASST-144** Credits: 4

### **PTA Principles of Neuromuscular Rehabilitation**

Integrates concepts of neuromuscular pathologies, physical therapy interventions and data collection in patient treatment. Prerequisite(s): Complete PTASST-139, PTASST-142 and PTASST-157.

**PTASST-145** Credits: 4

### **PTA Principles of Musculoskeletal Rehabilitation**

Integrates concepts of musculoskeletal pathologies, physical therapy interventions and data collection in patient treatment. Prerequisite(s): Complete PTASST-156 and PTASST-139.

**PTASST-146** Credits: 3

### **PTA Management of Cardiopulmonary and Integumentary Conditions**

Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment. Prerequisite(s): Complete PTASST-139, PTASST-142 and PTASST-157.

**PTASST-147** Credits: 2

### **PTA Clinical Practice 1**

Provides a part-time clinical experience to apply foundational elements, knowledge and technical skills pertinent to physical therapy practice. Prerequisite(s): Completion of or concurrent enrollment in PTASST-139 and PTASST-157.

**PTASST-148** Credits: 3

### **PTA Clinical Practice 2**

Provides another part-time clinical experience to apply foundational elements, knowledge and technical skills required of the entry-level physical therapist assistant in various practice settings. Prerequisite(s): Complete PTASST-157.

**PTASST-149** Credits: 2

### **PTA Rehabilitation across the Lifespan**

A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition to the PTA's role in health, wellness, and prevention, reintegration and physical therapy interventions for special patient populations will be addressed. Prerequisite(s): Complete PTASST-144, PTASST-145, PTASST-146 and PTASST-148.

**PTASST-150** Credits: 2

### **PTA Professional Issues 2**

Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communications strategies. Prerequisite(s): Complete PTASST-140 and PTASST-148.

**PTASST-151** Credits: 5

### **PTA Clinical Practice 3**

Provides a full-time clinical experience to apply foundational elements, knowledge and technical skills required of the entry-level physical therapist assistant in various practice settings. Prerequisite(s): Complete PTASST-144, PTASST-145, PTASST-146 and PTASST-148.

**PTASST-156** Credits: 4

### **PTA Applied Kinesiology 1**

Introduces basic principles of musculoskeletal anatomy, kinematics and clinical assessment. Students locate and identify muscles, joints and other landmarks of the lower quadrant in addition to assessing range of motion and strength. Prerequisite(s): Must be admitted to the Physical Therapy Assistant program (10-524-1). Complete BIOSCI-177 or both BIOSCI-201 and BIOSCI-202 with a grade of B- or higher.

**PTASST-157** Credits: 3

### **PTA Applied Kinesiology 2**

Applies basic principles from PTA Kinesiology 1 to the axial skeleton and upper quadrant including location and identification of muscles, joints and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrate analysis of posture and gait. Prerequisite(s): Complete PTASST-156, PTASST-139 and PTASST-140.

# QETECH – RESPC

## QETECH – Quality Engineering Technology (Department 623)

**QETECH-116** Credits: 3

### Engineering Economic Analysis

Basic financial accounting principles, cost systems, interpretation and use of accounting reports, discounted cash flow techniques, capital budgeting, return on investment, cost/benefit analysis, project selection and opportunity assessment will also be covered.

**QETECH-118** Credits: 3

### LEAN Principles

Students will identify and apply Lean tools to streamline business processes. Topic areas include value stream mapping, layout, 5S workplace organization, point of use storage, visual controls, standard work, cellular and flow concepts, Lean culture, pull/Kanban systems, error-proofing, and total productive maintenance.

**QETECH-132** Credits: 3

### Lean Six Sigma Green Belt 1

Provides the student with the skills and abilities to apply the Six Sigma methodology (Define/ Measure/ Analyze/ Improve/ Control). Six Sigma is a strategic approach to implementing quality, process and business efficiency improvement through the use of statistical and other analytic tools. Topic areas include problem and metric definition, project management, team dynamics, process mapping, investigative tools, process analysis and capability, and Gage R&R studies. Prerequisite(s): Complete BADM-104 or MATH-260.

**QETECH-134** Credits: 3

### Lean Six Sigma Green Belt 2

This course is the second part of the Lean Six Sigma Green Belt curriculum. This course details the Lean Six Sigma philosophy and terminology, and provides the necessary tools for completion of your Green Belt certification project. This course uses a combination of hands-on activities, lab exercises, presentations and lectures to provide a strong foundation with the Lean Six Sigma tools. The curriculum is structured around the well-known DMAIC methodology. Upon successful completion of this course, students will gain the necessary skills to lead Lean Six Sigma process improvement projects, work on teams led by Lean Six Sigma Black Belts and help your organization effectively implement Lean Six Sigma. Prerequisite(s): Complete QETECH-132.

**QETECH-138** Credits: 3

### Intro to Quality Engineering

Studies principles and techniques of quality engineering in management, production and assurance of quality. Emphasizes fundamentals of total quality assurance for products, service and process control including fundamentals of statistics, sampling, control charts, quality reporting, process capability analysis, tool and gage control, document control, standards, and continuous improvement methods. Prerequisite(s): Complete MATH-260 or BADM-104.

**QETECH-142** Credits: 3

### Lean Six Sigma Green Belt Project

Data collection and methods capstone project. Student will apply the Six Sigma problem-solving methodology to a real problem in their place of employment or through service learning. An emphasis will be placed on team skills, project deliverables, project, time and constraint management, and selection of appropriate tools and statistical techniques. Students will select one or more of four concentrations in healthcare, manufacturing, business operations, or environmental and social responsibility. Prerequisite(s): Complete QETECH-132 QETECH-134.

**QETECH-144** Credits: 3

### Supplier Quality Assurance

Provides students with the knowledge to determine acceptance criteria, evaluate and select new suppliers, assist in supplier development, monitor supplier performance, and risk management (price variances, quality variability, or delivery slippages). Includes the process to develop, implement and maintain an effective supplier nonconformance program in the organization. Students should be proficient in using the internet and Microsoft Office applications including Word, Excel and PowerPoint in this program. Those students who are not proficient in these applications should take COMPSW-106 or CIVIL-105. Prerequisite(s): Complete MATH-260 or BADM-104.

**QETECH-188** Credits: 3

### Project Management

In this course, students apply the skills and tools necessary to design, implement and evaluate formal projects. Each student demonstrates the application of the role of project management, develops a project proposal, uses relevant software, works with project teams, sequences tasks, charts progress, and deals with variations, budgets and resources, implementation, and assessment.

**QETECH-200** Credits: 3

### Fundamentals of Engineering

In this course, students will ascertain how to be successful in an undergraduate engineering technology program. The student will acquire the fundamental skills related to engineering technology, such as sketching, geometries, units of measure and common computer applications. They will explore problem-solving strategies and career paths for a variety of engineering specialties. Upon completion of this course, students will document engineering career goals and an educational path to attain those goals.

## RADT – Radiography (Department 526)

**RADT-149** Credits: 5

### Radiographic Procedures 1

This course prepares radiography students to perform routine radiologic procedures on various parts of the body, including the upper body, hip, pelvis and ankle. Students apply knowledge of

human anatomy to position the patient correctly to achieve the desired results. Prerequisite(s): Must be admitted to the Radiography program (10-526-1). Completion of or currently enrolled in BIOSCI-177 or BIOSCI-202.

**RADT-158** Credits: 3

### Introduction to Radiography

This course introduces students to the role of radiography in healthcare. Students apply legal and ethical considerations to patient care and pharmacology in the radiologic sciences. Prerequisite(s): Must be admitted to the Radiography program (10-526-1) and be CPR certified.

**RADT-159** Credits: 3

### Radiographic Imaging

This course introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality, including contrast, density and distortion. Students apply OSHA standards for health and safety in the darkroom. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

**RADT-168** Credits: 2

### Radiography Clinical 1

This beginning-level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

**RADT-174** Credits: 2

### ARRT Certification Seminar

This course provides preparation for the national certification examination prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

**RADT-189** Credits: 1

### Radiographic Pathology

Prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications and prognosis, and locate the radiographic appearance of pathologies. Prerequisite(s): Must be admitted to the Radiography program (10-526-1). Complete RADT-191.

**RADT-190** Credits: 2

### Radiography Clinical 5

This fifth-level clinical course prepares radiography students to perform radiologic procedures on patients with some supervision.



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Prerequisite(s): Must be admitted to the Radiography program (10-526-1)

### **RADT-191** Credits: 5 **Radiographic Procedures 2**

This course prepares radiography students to perform routine procedures on various parts of the body, including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired results. Prerequisite(s): Complete RADT-149, RADT-158, RADT-159 and RADT-168.

### **RADT-192** Credits: 3 **Radiography Clinical 2**

This second-level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

### **RADT-193** Credits: 3 **Radiography Clinical 3**

This third-level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting. Prerequisite(s): Must be admitted to the Radiography program (10-526-1). Complete RADT-230, RADT-191 and RADT-192.

### **RADT-194** Credits: 3 **Imaging Equipment Operation**

This course introduces radiography students to the principles and application of X-ray technology. Students analyze how X-rays are produced and determine the corrective actions necessary for common equipment malfunctions. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

### **RADT-195** Credits: 2 **Radiographic Image Analysis**

Prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems, including equipment malfunctions and procedural errors.

### **RADT-197** Credits: 3 **Radiation Protection and Biology**

This course prepares radiography students to protect themselves and others from exposure to

radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure. Prerequisite(s): Complete RADT-194, RADT-231 and RADT-199.

### **RADT-198** Credits: 2 **Radiography Clinical 6**

This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high-quality radiographs in the clinical setting. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

### **RADT-199** Credits: 3 **Radiography Clinical 4**

This fourth-level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Prerequisite(s): Must be admitted to the Radiography program (10-526-1). Complete RADT-193.

### **RADT-230** Credits: 2 **Advanced Radiographic Imaging**

Explores the factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented. Prerequisite(s): Complete RADT-149, RADT-158, RADT-159 and RADT-168.

### **RADT-231** Credits: 2 **Imaging Modalities**

Introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy. Prerequisite(s): Must be admitted to the Radiography program (10-526-1). Complete RADT-230, RADT-191 and RADT-193.

## **RBUS – Related Business (Department 105)**

### **RBUS-102** Credits: 3 **Mathematics of Business**

Students develop techniques to efficiently and accurately calculate business applications of checking accounts, bank reconciliation, percentage formula, rate and amount of increase and decrease, payroll, invoices, trade discounts, cash discounts, markup, markdown, interest, credit, and loans.

## **RESPC – Respiratory Therapy (Department 515)**

### **RESPC-111** Credits: 3 **Respiratory Survey**

Examines the role of the respiratory therapist within the healthcare community. Reviews the ethical, legal and regulatory principles that guide practice across diverse populations. Introductory patient assessment and critical thinking processes used in the development of respiratory care plans are explored. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1).

### **RESPC-112** Credits: 2 **Respiratory Airway Management**

Provides a comprehensive exploration of airway management concepts and skills. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Completion of or currently enrolled in RESPC-174.

### **RESPC-113** Credits: 3 **Respiratory Life Support**

Focuses on management of adult ventilatory support. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete RESPC-172 and RESPC-175. Completion of or currently enrolled in RESPC-112.

### **RESPC-145** Credits: 3 **Respiratory Care Registry Review**

This course provides respiratory care practitioners with a review of essential knowledge and techniques required for the advanced practitioner written registry and clinical simulation examinations. Prerequisite(s): Complete RESPC-113.

### **RESPC-171** Credits: 3 **Respiratory Therapeutics 1**

Introduces the topics of medical gas administration and humidity and aerosol therapy. The learner will apply physics, math and patient assessment concepts to oxygen, aerosol and humidity therapy. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Completion of or currently enrolled in RESPC-111 and BIOSCI-177 or BIOSCI-202.



# RESPC – SOCSCI

**RESPC-172** **Credits: 3**

## **Respiratory Therapeutics 2**

Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy and pulmonary rehabilitation. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Completion of or currently enrolled in RESPC-171.

**RESPC-173** **Credits: 3**

## **Respiratory Pharmacology**

Examines basic pharmacology principles, drug dosage and calculations. Medications for inhalation, including mucolytics, bronchodilators and anti-inflammatories. Also includes cardiac drugs, anesthetic drugs, neuromuscular blockers and antimicrobials. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete BIOSCI-177 or BIOSCI-202. Completion of or currently enrolled in RESPC-111.

**RESPC-174** **Credits: 3**

## **Respiratory/Cardiac Physiology**

Provides the student with an in-depth knowledge of the structure and function of the respiratory and circulatory systems necessary to function as a competent respiratory therapist. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Complete BIOSCI-177 or BIOSCI-202.

**RESPC-175** **Credits: 2**

## **Respiratory Clinical 1**

Introduces respiratory therapy practice in the hospital setting. Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction and communication. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of five (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical. Prerequisite(s): Complete RESPC-111. Completion of or currently enrolled in HEALTH-101, RESPC-171 and RESPC-172.

**RESPC-176** **Credits: 3**

## **Respiratory Disease**

Exploration of signs, symptoms, causes, progression and treatment of diseases or disorders of the body that affect the respiratory cardiopulmonary system. Emphasis is placed on promotion of evidence-based practice using

established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete RESPC-111. Completion of or currently enrolled in RESPC-174.

**RESPC-178** **Credits: 3**

## **Respiratory Clinical 2**

Continued development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 12 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Complete RESPC-175

**RESPC-179** **Credits: 3**

## **Respiratory Clinical 3**

Continued development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in a minimum of 19 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Complete RESPC-178.

**RESPC-180** **Credits: 2**

## **Respiratory Neonatal/Pediatrics Care**

Provides a comprehensive orientation to the field of neonatal and pediatric respiratory care to include fetal development, birth, neonatal physiology, pulmonary dynamics, abnormal cardiopulmonary conditions, diseases, noninvasive and invasive therapeutic interventions. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Completion of or currently enrolled in RESPC-113.

**RESPC-181** **Credits: 3**

## **Respiratory/Cardio Diagnostics**

Advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapy program (10-515-1). Complete RESPC-173. Completion of currently enrolled in RESPC-113 and RESPC-176.

**RESPC-182** **Credits: 3**

## **Respiratory Clinical 4**

Continued development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 26 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Complete RESPC-179. Completion of or currently enrolled in RESPC-113.

**RESPC-183** **Credits: 3**

## **Respiratory Clinical 5**

Focuses on the completion of respiratory therapy competencies and transition to employment. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in all of the required and required/simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Complete RESPC-182.

## **RLEST – Real Estate (Department 194)**

**RLEST-180** **Credits: 3**

### **Principles of Real Estate**

This course, in addition to Real Estate Law (RLEST-182), satisfies the educational licensing requirement that must be met prior to taking the State of Wisconsin Real Estate Salesperson Exam.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

The content of the course will address agency/brokerage, title and deeds, finance appraisal, home ownership, economics of real estate government limitation, forms, and contracts.

### **RLEST-181** Credits: 3 **Principles of Commercial Real Estate**

This course covers the broad area of commercial property, which includes retail facilities, office buildings, mini-storage and warehouses, as well as apartment complexes. Areas to be addressed include listing, leasing, financing, marketing, buying, selling, valuation and the advantages of specialization. The difference between commercial and residential building, as a real estate professional and as an investor, will be emphasized.

### **RLEST-182** Credits: 3 **Real Estate Law**

This course, in addition to principles of Real Estate (RLEST-180), will satisfy the educational requirements for the state of Wisconsin Real Estate Salesperson Exam. The course will cover the duties and responsibilities of a real estate professional. Disclosure requirements, all forms, contracts, addenda, amendments, deed options and land contracts will be covered thoroughly. Closing a transaction, discrimination, landlord/tenant law and environmental issues will also be covered.

### **RLEST-183** Credits: 3 **Real Estate Broker Preparation**

The course satisfies the educational requirement for the State of Wisconsin Real Estate Brokers Exam. The course will focus on closing a transaction, as well as the responsibilities of a broker including: employer and human resources, supervision and leadership, managing liability and risk, and disclosure duties. A real estate business, as a business, includes trust accounts, special issues from Starker exchanges, auctions, foreclosures and short sales. Instruction also includes familiarity with all of the forms and contract options.

### **RLEST-184** Credits: 3 **Real Estate Mortgage Processing**

The fundamentals of mortgage lending and lending terminology are covered, along with the sources of mortgage money from conventional to governmental financing. Mortgage lending math, loan documents, government agencies and the secondary mortgage market are also examined. Government controls from the HUD-1 to the RESPA rules are covered. This is an ever-changing industry with many opportunities and complications.

### **RLEST-185** Credits: 3 **Real Estate Investment Principles**

Real estate investment fundamentals are explained. Types of investment real estate, investment objectives and the investment process are discussed. Investment techniques are analyzed from the gross rent multiplier to the internal rate of return and cap rates. You will be able to compare properties, investment opportunities or limitations.

### **RLEST-187** Credits: 3 **Broker Management**

This course plus the Broker Preparation RLEST-183 will meet the requirements for the State of Wisconsin licensing as a Real Estate Broker. The course will cover in depth all the State of Wisconsin real estate forms, contracts and documents. A heavy focus will be on the management of a real estate brokerage business. This would include business management, financial management, office management and employee or agent management. Another important area that will be covered in depth is the duties of a broker and ethics. We will look at these components considering industry standards and regulatory requirements.

### **RLEST-188** Credits: 3 **Listing Selling and Sales Tools**

Broker/salesperson relationships and office/listing procedures are studied. Client responsibility and property information disclosure are examined. Listing Contract, Offer To Purchase, advertising sales plans/presentation are also reviewed. Current sales and marketing of real estate is reviewed.

### **RLEST-189** Credits: 3 **Introduction to Home Inspection**

This course is designed to meet the need for inspection knowledge for the real estate market, including inspectors, realtor buyers and sellers. The course covers the physical components of a home, including soils, foundations, structure, plumbing, electrical, heating, venting and air conditioning. Public policy, procedures and report writing are also addressed in this class.

### **RLEST-190** Credits: 3 **Introduction to Property Management**

Property management is discussed in regard to leases, rent scheduling, selling space and renting techniques. Tenant selection, supervision and relations with owners are covered, along with purchasing, budgets, reports, and legal and professional relationships. Also addressed is the industry of providing property management services to both residential and commercial clients.

### **RLEST-191** Credits: 3 **Residential Plumbing for Inspectors**

This course focuses on passing the State of Wisconsin Uniform Dwelling Code Plumbing Inspector Exam. All plumbing code material on the exam, including pipe sizing, water distribution and waste systems and cross connection, will be covered in class.

### **RLEST-197** Credits: 3 **Commercial Building Code for Inspectors**

This course focuses on the Wisconsin Commercial Building Code of the State of Wisconsin Department of Commerce and prepares students for the Department of Commerce Commercial Building Inspector Certification Exam.

## **SOCSCI – Social Science (Department 809)**

### **SOCSCI-103** Credits: 3 **Think Critically and Creatively**

Provides instruction about critical and creative thinking that is in high demand in all occupations. Models, theories and processes provide the foundation for learning logical thinking strategies. Students will apply a systematic approach to problem-solving by analyzing the problem, assessing possible solutions and making effective decisions. In addition, students will generate ideas and analyze complex issues. This course assists students with developing a critical thinking mindset, which is essential at every level of personal and professional life.

### **SOCSCI-149** Credits: 3 **Ethics for the Professions**

This course surveys the range of ethical theories relevant in ethics today. Critical discussions cover a range of approaches to the ethical dilemmas of various professions, such as health, human services, and business and industry. Students will select an ethical theory to support the code of ethics for their profession.

### **SOCSCI-166** Credits: 3 **Intro to Ethics: Theory and Application**

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations.

### **SOCSCI-172** Credits: 3 **Introduction to Diversity Studies**

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

### **SOCSCI-197** Credits: 3 **Contemporary American Society**

This course examines the network of interdependent social systems that affect learners as employees, family members and citizens. In this interdisciplinary course, learners will study public policy issues that illustrate how our traditional institutions, such as family, education, government, work and media, are being changed by global, political, demographic, multicultural and technological trends. By exploring contemporary issues, learners will expand their use of creative and critical thinking skills in evaluating information, making decisions, advocating positions and participating in the democratic process.

# SOCSCI – SURGT

## **SOCSCI-200 Credits: 3**

### **Introduction to Ethical Issues**

Introduction to Ethical Issues is a course that surveys the range of theories and principles that are relevant in ethical discussion and debate today. Thoughtful exploration and examination will address the range of moral views and approaches that are pertinent to ethical dilemmas in both personal and public life, and from community or local interest to the larger worldview.

## **SOCSCI-203 Credits: 3**

### **Introduction to Sociology**

This is the study of social relationships with emphasis on groups and the structure of society. The course details the various social processes and concepts that shape behavior, analyzing such phenomena as culture, roles, groups, stratification, deviance, race, population and social change.

## **SOCSCI-204 Credits: 3**

### **Marriage and the Family**

This course is designed to make students aware of relationships and marriage in contemporary society. The basic functions of the family are studied and sociological and psychological principles are applied to family living.

## **SOCSCI-206 Credits: 3**

### **Introduction to Cultural Anthropology**

Students survey the broad field of anthropology with a strong emphasis on culture and its expressions in human societies. Cross-cultural comparison and descriptions based on fieldwork are utilized in order to understand human behavior realistically and without bias.

## **SOCSCI-207 Credits: 3**

### **Introduction to Criminology**

An analysis is made of criminal behavior. Theories of crime causation are examined, as well as crime typologies and crime statistics. The course provides an overview of criminal justice agencies.

## **SOCSCI-208 Credits: 3**

### **Global Cultures and Politics**

The goal of the course is to introduce students to a wide range of issues and concepts related to globalization from a cultural perspective. Students will be exposed to some of the pressing problems related to globalization that face humanity. Through course readings and class discussions, students will explore how they can find solutions to these problems. Major theories and cross-cultural demonstrations of globalization will be examined. Central to the course is how social actors and their communities respond to globalization processes and how globalization has affected cultural values, politics and human behaviors.

## **SOCSCI-209 Credits: 3**

### **Sociology of Religion**

This is an introductory course in the study of religions from the viewpoint of the social sciences. Religion is presented as a universal function of human societies and as an aspect of group behavior.

## **SOCSCI-210 Credits: 3**

### **Death and Dying**

This course will concentrate upon the historical and sociological background of the customs and practices related to death and dying in the United States and other countries; the emotional reactions and adjustments to death and dying; and identification of services and resources.

## **SOCSCI-211 Credits: 3**

### **Intro to Women's Studies**

This course is an introduction to understanding the world through diverse experiences of women. Together we will examine gender experience in both the public and private realms of society, in popular culture, and in institutions such as the workplace, the family and the state. The course focuses on the social construction of gender, race, class and sexual identity and the interlocking nature of these forms of oppression. Students will become familiar with women's and gender studies scholarship and attain tools to connect what one learns to one's life and to further academic study. We will pay special attention to how gender and sexuality vary across ethnic, racial and class lines. Reading assignments cover a wide range of perspectives and attempt to represent classic writings in women's studies, recent women's studies scholarship and women's own accounts of their life experiences. Writing assignments will emphasize learning by doing. Students will come away with tools for both critical analysis of gender in society and for creating positive social change.

## **SOCSCI-214 Credits: 3**

### **Gender and Society**

Exploration of the social roles that are ascribed to females and males within society and the social behavior expected within the constraints of femininity and masculinity. Exploration of the social processes of creating, maintaining and changing sex/gender roles through the analysis of social institutions and social structures, using both theoretical and experiential perspectives. Students will become familiar with the social forces that help construct personal identity and consciousness and shape our belief systems as gendered beings. Gender will be explored on the personal level, the societal level and the global level, with cross-cultural perspectives, as well as the historical roots of gender, being presented. Sociological theories will be considered as explanatory tools for understanding the impact of gender and its resulting imperative responsibilities and problems.

## **SOCSCI-217 Credits: 3**

### **Valuing Diversity**

Emphasis is placed on common elements among individuals and groups of people. Programs provide sociological lessons dealing with race, social class, age, gender, sexual orientation and the sociology of minorities.

## **SOCSCI-221 Credits: 3**

### **American National Government and Politics Today**

This introductory course in political science is concerned with the American political process and its institutions: the Constitution, civil rights

and freedoms, Congress, the presidency, federal powers and policy-making, the federal judiciary, and the election process in American political cultures.

## **SOCSCI-222 Credits: 3**

### **American State and Local Government**

This is a comprehensive course that deals with the organization and functions of state and local governments: state executive, legislative and judicial branches; state constitutions; contemporary intergovernmental relations; differences in regional, rural and urban governments; and the political process at the grassroots level.

## **SOCSCI-224 Credits: 3**

### **Peoples and Cultures of the World**

The course will introduce students to different cultures across the world. It will specifically examine human behaviors and the larger society cross-culturally. The course will be organized thematically, wherein students will explore various cross-cultural applications of social life in one semester. Possible themes of social life include AIDS and society, culture and international development, globalization and society, technology and culture, religion and society, kinship, marriage, art and culture, nationalism, children, and society.

## **SOCSCI-236 Credits: 3**

### **Juvenile Delinquency**

The history, philosophy and theoretical framework of juvenile delinquency and the justice system for juveniles is surveyed. Psychological, sociological, biological and environmental factors influencing juvenile delinquency are studied. Significant statutes and Supreme Court decisions are analyzed along with significant research in ethnicity and gender.

## **SOCSCI-242 Credits: 3**

### **African American Social Thought and Culture**

This is an introduction to the diversity of African American social thought and culture. The course includes exploration into the ideologies of prominent African American social thinkers and sociologists and the underlying structure and patterns of African American culture.

## **SOCSCI-246 Credits: 3**

### **Human Sexuality**

This course focuses on the biological, psychological and social perspectives of human sexuality. It is a practical course designed to be applied to the everyday business of living, at home, in school and in the workplace.

## **SOCSCI-250 Credits: 3**

### **Introduction to Philosophy**

This course surveys the major figures and doctrines of Western philosophy from classical antiquity to present times. The course also involves discussions of fundamental philosophical questions, especially questions having practical socio-ethical implications.



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

### **SPEECH – (Department 810)**

#### **SPEECH-201 Credits: 3**

##### **Elements of Speech 1**

The purpose of this course is the development of speaking skills. Stress is placed upon speech content, organization and delivery. Growth in poise and confidence is a major goal of this course.

#### **SPEECH-203 Credits: 3**

##### **Interpersonal Communication**

This course applies the theory and principles of one-to-one communication to personal and professional relationships. Topics include gender, self-awareness, verbal and nonverbal communication, conflict management, assertiveness, and perception.

#### **SPEECH-206 Credits: 3**

##### **Intercultural Communication**

The course offers an opportunity to learn how to identify and appreciate cultural differences in terms of communication styles. Students will improve their ability to communicate, both personally and professionally, with others of different cultures.

#### **SPEECH-209 Credits: 3**

##### **Business and Professional Comm**

This course is an introduction to business and professional communication. The course includes a rough discussion of intrapersonal, interpersonal, and/or sociocultural factors associated with individual behavior, collective action, or societal development. The course also aims to enhance students' ability to identify, apply and effectively communicate methodologies designed for conducting an inquiry into human behavior, collective action, societies, or cultures. Several practical elements are built into the course based on foregoing considerations (e.g., impromptu speaking, career interview and presentation). Prerequisite(s): Complete SPEECH-203.

#### **SPEECH-210 Credits: 3**

##### **Conflict and Communication**

The emphasis of this course is on developing communication behaviors that productively manage conflict; it is structured to integrate communication theory with practical application. Through readings, lectures, sample conflict cases and interviews, as well as through in-class discussion and exercises, this course will address both intrapersonal and interpersonal conflicts that occur in diverse settings, examine the sources of these conflicts and analyze the factors that influence how we identify, define, manage and defuse these conflicts.

#### **SPEECH-211 Credits: 3**

##### **Intro. Argumentation and Debate**

This course is designed to provide an introduction to the principles of argumentation, debate and logic. Students will examine different models of argument, learn how to structure and support arguments, and practice those skills in individual speaking, partnered and group contexts.

#### **SPEECH-212 Credits: 3**

##### **Introduction to Theater**

This course examines the history and development of theater in its various forms. Primarily the course examines the technical and artistic elements of theater to provide students with a general understanding and appreciation of this art form. Students attend and critique several theater productions.

### **SUDC – Substance Disorder Counseling (Department 550)**

#### **SUDC-109 Credits: 3**

##### **Drug Use and Abuse**

Students are acquainted with the pharmacological effects of chemical use/abuse. This course takes an analytic approach to identification, intervention, prevention and treatment issues.

#### **SUDC-150 Credits: 3**

##### **Professional Readiness/ Ethics**

This course is designed to familiarize the student with the obligations of an addiction counselor to adhere to accepted ethical and behavioral standards of conduct and continuing education. An emphasis on professional codes of ethics, federal and state laws and agency regulations, and professional development is maintained.

#### **SUDC-151 Credits: 3**

##### **Clinical Evaluation and Treatment Planning**

This course provides an overview of the key components of the evaluation and treatment planning processes, including the necessary knowledge base, skills and attitudes of the professional. This is also a practice-oriented course, and students will participate in a variety of screening, assessment and treatment planning situations. Prerequisite(s): Complete HUMSVC-102, HUMSVC-103 and HUMSVC-113.

#### **SUDC-152 Credits: 3**

##### **Service Coordination and Documentation**

This course focuses on the administrative, clinical and evaluative activities that bring the client, treatment services, community agencies and other resources together to focus on issues and needs identified in the treatment plan. Documentation requirements and skills, record management, and confidentiality issues are also a primary focus of the class. Prerequisite(s): Complete SUDC-109.

#### **SUDC-154 Credits: 3**

##### **Counseling Skills Development**

This course provides instruction and practice opportunities to develop the specific skills necessary for counseling individuals, groups, families and significant others. These skills include establishing a helping relationship, interviewing, using methods that reinforce positive behavior, motivational techniques, reframing and redirecting negative behaviors, crisis management, and applying culturally

appropriate intervention strategies. Prerequisite(s): Complete HUMSVC-102, HUMSVC-103 and HUMSVC-113.

#### **SUDC-160 Credits: 1**

##### **Ethical Dilemmas**

This course provides an opportunity for reflection and conversation about the ways in which personal and professional values impact work with clients. Emphasis is placed on exploring roles, rules and boundaries, which are necessary for the helping relationship. An eight-step process for ethical decision-making will be explained and applied to select case examples.

#### **SUDC-161 Credits: 1**

##### **Treatment Issues**

This course applies fundamental principles of the helping relationship to working with clients who have problems related to their substance use. Emphasis is placed on application of current treatment models in the areas of assessment, case management, education, professional responsibilities and counseling.

#### **SUDC-162 Credits: 1**

##### **Service Delivery Issues**

This course focuses on issues related to delivery of substance abuse services to diverse population groups. Emphasis is placed on providing effective tools for the case management and coordination.

### **SURGT – Surgical Technology (Department 512)**

#### **SURGT-125 Credits: 4**

##### **Intro to Surgical Technology**

This course provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Complete HEALTH-101 and BIOSCI-177 or BIOSCI-201. Completion of or currently enrolled in BIOSCI-197.

#### **SURGT-126 Credits: 4**

##### **Surgical Tech Fundamentals 1**

This course focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Complete SURGT-125. Completion of or currently enrolled in SURGT-127.

#### **SURGT-127 Credits: 2**

##### **Exploring Surgical Issues**

This course explores a variety of issues related to surgical technology. Emphasis is placed on becoming a professional member of the surgical team. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Completion of or currently enrolled in SURGT-125.



# SURGT – TV

**SURGT-128** Credits: 4

## **Surgical Tech Fundamentals 2**

This course focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab is included. Prerequisite(s): Complete HEALTH-101 with a grade of C or higher, SURGT-126 and SURGT-127. Completion of or currently enrolled in SURGT-129.

**SURGT-129** Credits: 2

## **Surgical Pharmacology**

This course is a basic study of drug classifications, care and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Complete BIOSCI-197 with a grade of C+ or higher. Completion of or currently enrolled in SURGT-125 and either BIOSCI-179 or BIOSCI-202.

**SURGT-130** Credits: 2

## **Surgical Skills Application**

This course provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Completion of or currently enrolled in SURGT-128.

**SURGT-131** Credits: 4

## **Surgical Interventions 1**

Provides the foundational knowledge of surgical core and specialty procedure. Examines the pathophysiology, diagnostic interventions, health sciences and surgical techniques for a variety of procedures. Prerequisite(s): Complete SURGT-128 and SURGT-130. Completion of or currently enrolled in SURGT-132.

**SURGT-132** Credits: 3

## **Surgical Technology Clinical 1**

Students apply basic surgical theories, principles and procedural techniques in the operating room. They begin to function as team members under the guidance of the instructor and authorized clinical personnel. Prerequisite(s): Complete SURGT-128 and SURGT-130. Completion of or currently enrolled in SURGT-131

**SURGT-133** Credits: 3

## **Surgical Technology Clinical 2**

Further experience in the clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Prerequisite(s): Complete SURGT-132. Completion of or currently enrolled in SURGT-131.

**SURGT-135** Credits: 3

## **Surgical Technology Clinical 3**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Prerequisite(s): Complete SURGT-131 and SURGT-133. Completion of or currently enrolled in SURGT-142.

**SURGT-136** Credits: 3

## **Surgical Technology Clinical 4**

During this clinical course the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry-level surgical technologist. Prerequisite(s): Complete SURGT-135. Completion of or currently enrolled in SURGT-142.

**SURGT-142** Credits: 4

## **Surgical Interventions 2**

Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques. Prerequisite(s): Complete SURGT-131 and SURGT-133. Completion of or currently enrolled in SURGT-135.

## **TDMKG – Tool and Die Making (Department 439)**

**TDMKG-360** Credits: 1

### **Basic Die Making Technology**

This course introduces students to the theories necessary to properly construct basic stamping and forming dies. Part terminology and function are integrated into the format via lecture and discussion.

**TDMKG-361** Credits: 1

### **Advanced Die Making Technology**

This course is a continuation of the previous course, Basic Die Making Technology. This course explores the theories necessary for proper die construction of more advanced progressive, inverted and compound dies. Prerequisite(s): Complete TDMKG-360.

**TDMKG-362** Credits: 1

### **Cavity Die Technology**

This course introduces the student to the theories involved in proper mold construction in the three major areas of mold building: plastics (thermoset and thermoplastic), diecasting and rubber molds.

**TDMKG-366** Credits: 1

### **CNC Programming 2**

This course instructs students in the techniques necessary for proper construction and transmission of a computerized numerical control program via a computer-aided graphics system as it is used in the field of tool and die making. Prerequisite(s): Complete MACHTL-304.

**TDMKG-367** Credits: 1

### **Basic CAD CAM**

Students are introduced to the basic components of a CAD/CAM system, drawing creation and editing using CAD, layering and drawing management, CAD and CAM system interface, file transfer, and tool path creation using CAD files on a CAM system. Prerequisite(s): Complete TDMKG-366.

**TDMKG-371** Credits: 4

### **Stamp Die Making 1**

Skills and knowledge are developed through the production of compound die components. Die clearance, alignment and component function

are taught through practical application. Conversational CNC programming skills are introduced and developed. Prerequisite(s): Complete MACHTL-301, MACHTL-304, MACHTL-310, MACHTL-320, MACHTL-322 and MACHTL-325.

**TDMKG-372** Credits: 4

### **Stamping Die Making 2**

This course is a continuation of Stamping Die Making 1 with the student mounting their compound die. Students are also required to set up the die and do a trial run in an OBI press. Components for a progressive die are machined while continuing to develop skills in CNC machining, conventional machining, and surface grinding. Prerequisite(s): Complete TDMKG-371.

**TDMKG-373** Credits: 4

### **Stamping Die Making 3**

Students' knowledge increases as they complete a progressive die. They learn advanced surface grinding along with wire EDM programming, setup and operation. Die mounting skills are enhanced as they align and mount pierce, blank and cutoff punches. Prerequisite(s): Complete TDMKG-372.

**TDMKG-381** Credits: 4

### **Moldmaking 1**

Skills and knowledge are enhanced through the machining of various mold components. A variety of conventional and CNC machine tools are utilized with instruction that focuses on tolerance, fitting and final assembly. Setup and operation of the RAM EDM is introduced. Prerequisite(s): Complete TDMKG-373

**TDMKG-382** Credits: 4

### **Moldmaking 2**

This course is a continuation of Moldmaking 1 with a focus on CNC VMC programming, setup and operation, as well as mold polishing. Mold components will be produced utilizing conversational CNC mills and surfacing grinding. Mold component relationship and function are stressed. As with other moldmaking courses, the student must trial run the completed mold. Prerequisite(s): Complete TDMKG-381.

**TDMKG-383** Credits: 4

### **Moldmaking 3**

Students will expand upon the moldmaking knowledge developed in the first two courses as they develop CNC programs and construct a mold that will run in a master unit die. Essential moldmaking practices are further developed as students produce all of the mold components required for their capstone project. Prerequisite(s): Complete TDMKG-382.

## **TRCKDR – Truck Driving (Department 458)**

**TRCKDR-345** Credits: 5

### **Truck Driving 1**

This course covers the general rules and laws pertaining to the CDL and operation of a commercial motor vehicle (CMV) including

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transporting hazardous materials (HazMat). Vehicle systems, maintenance and servicing issues are also explained. In this course, students learn how to properly inspect a CMV and how to operate one safely. Basic operations, specific to tractor semitrailer, will be discussed and performed including fundamentals of the defensive driving techniques. Prerequisite(s): Must be admitted to the Truck Driving program (30-458-1) in accordance with the program admission process.

### **TRCKDR-346 Credits: 5** **Truck Driving 2**

This course further prepares students to obtain a commercial driver's license and safely perform professional driver's duties as required in the transportation industry. Course focuses on improving driving skills and expending defensive driving abilities in various situations and different environments. Additionally, this course covers several non-driving related topics. During this course, students must demonstrate proficiency as described by FMCSA Entry-Level Driver Training (ELDT) rule and must successfully obtain a commercial driver's license to complete this course. Prerequisite(s): Complete TRCKDR-345 course within the last six months.

## **TV – Television and Video Production (Department 701)**

### **TV-101 Credits: 4** **TV/Video Studio Production Techniques**

This course is a survey of the principles of studio and field television operations, including camera techniques, lighting, sound, control rooms, settings, scenery, properties, floor directing and scripting as applied to operations within the television industry. Prerequisite(s): Completion of or currently enrolled in DCC-150 and TV-181.

### **TV-104 Credits: 2** **TV Studio/Field Set Design**

Students learn techniques in planning and creating appropriate settings for digital visual capture. Utilizing Milwaukee PBS studios, theaters and typical location scenarios, the students will understand how to create a proper visual environment for video. Prerequisite(s): Must be admitted to the Television and Video Production program (10-701-1). Completion of or currently enrolled in TV-101

### **TV-105 Credits: 4** **TV/Video Field Production Techniques**

This course provides the student with a general understanding of equipment and techniques used in field-based video and television and their functions in visual communications and broadcasting. To prepare the student for general field, on-location and other remote production assignments. Prerequisite(s): Complete TV-101. Completion of or currently enrolled in TV-112.

### **TV-106 Credits: 2** **Grip/Gaffing and Camera Support**

This course explores and provides hands-on experience in the craft of field lighting. Students will focus on the principles, best

practices and equipment used for successfully lighting non-studio field environments for either broadcast or digital video delivery. This includes understanding, choosing and operating portable field lighting kits, becoming familiar with grip and gaffer roles on a set and with field camera support tools, as well as learning how to troubleshoot/optimize lighting in unpredictable environments. Students will practice lighting in a variety of situations, producing projects and participating in field shoots designed to showcase solid, purposeful lighting. Prerequisite(s): Complete TV-105. Completion of or currently enrolled in TV-142.

### **TV-107 Credits: 3** **Script Writing for Visual Media**

Basic concepts of script writing for television, radio and film are presented. Students are encouraged to think in visual terms and to utilize the unique properties of the medium to communicate these visual impressions. Prerequisite(s): Must be admitted to the Television and Video Production program (10-701-1), the Digital Content Creation program (10-701-3) or the TV/Video Studio Production Assistant program (31-701-2). Completion of or currently enrolled in TV-105.

### **TV-108 Credits: 2** **TV Studio Lighting Techniques**

Students learn the basic principles and practical applications of television lighting techniques for in-studio production situations. Attention is given to television production enhancement through lighting, understanding the common tools of studio lighting, familiarization with tools, fixtures and lighting boards, the use of settings, and their design. Prerequisite(s): Must be admitted to the Television and Video Production program (10-701-1) or the TV Video Studio Production Assistant program (31-701-2). Completion of or currently enrolled in TV-101.

### **TV-109 Credits: 2** **Techniques for Field Audio Acquisition**

This course focuses on the principles, best practices and equipment used for successfully acquiring pristine, effective audio for video/TV/digital media production. This includes understanding, choosing and operating field audio acquisition equipment (microphones, booms, mixers, etc.) as well as learning how to troubleshoot and optimize audio in the unpredictable environment of the field. Students will create their own mixes and produce projects designed to showcase solid, impactful sound. Prerequisite(s): Must be admitted to the Television and Video Production program (10-701-1) or the Digital Content Creation Program (10-701-3). Complete TV-105. Completion of or currently enrolled in TV-142.

### **TV-110 Credits: 4** **Advanced Production Techniques**

Training is provided in the responsibilities of the television producer/director in planning and producing television shows. These relate to program formats, advanced production

techniques, costs, technical facilities, crew management and talent selection. Prerequisite(s): Complete TV-105, TV-112 and TV-121. Completion of or currently enrolled in TV-119.

### **TV-112 Credits: 3** **Storytelling Via Post-Production**

Students are introduced to editing concepts and techniques and are taught to assess and assemble visual sequences into completed segments. Training is provided in pulse-count and time code editing, backspace and computer-based systems, external triggering, list management, and simple programming. Prerequisite(s): Completion of or currently enrolled in TV-105.

### **TV-115 Credits: 4** **Advanced Broadcast Program Production**

All elements of television production are combined to enable students to utilize a wide range of broadcast equipment in the production of both open and closed-circuit television materials. Emphasis is also placed on applied media aesthetics. Prerequisite(s): Complete TV-161.

### **TV-119 Credits: 3** **Operational Broadcast Engineering**

This course is a study of basic television systems and equipment embracing the techniques of camera video operations (registration, color balancing, maintenance, video level control), audio and videotape systems, switchers, audio consoles, microphones, character generators, and time-code editors. Prerequisite(s): Completion of or currently enrolled in TV-110.

### **TV-121 Credits: 3** **TV and Video Production Workshop 1**

Students are assigned to floor crew positions on WMVS/WMVT programs so that they may obtain "on-the-air" experience in areas where limited TV experience is required. Prerequisite(s): Completion of or currently enrolled in TV-105.

### **TV-123 Credits: 3** **TV and Video Production Co-Op 1**

Advanced practical video experience may be obtained through positions directly related to the student's career goals. Students may enhance their educational skills through supervised work experience in conjunction with the local broadcast, cable and/or corporate video community. Prerequisite(s): Completion of or currently enrolled in TV-121.

### **TV-124 Credits: 3** **TV and Video Production Co-Op 2**

Additional video work experience may be obtained through entry-level positions that lead to advancement and provide experiences in relevant work situations. Prerequisite(s): Complete TV-123 or instructor waiver.

# TV – WELD

**TV-132** **Credits: 3**

## **Advanced Non-Linear Editing**

This course is designed to build upon the techniques learned in TV-142 and to provide students with hands-on experience in high-end, non-linear edit systems utilized in both online and finishing situations. Techniques and practice include system overview, advanced editing, color grading and effects, storage and MAM management techniques, advanced project management, advanced practice in storytelling via editing and self, client, and system diagnostics. Prerequisite(s): Complete TV-142.

**TV-142** **Credits: 3**

## **Intermediate Non-Linear Video Editing**

This course will focus on intermediate techniques in editing video footage in a nonlinear world and adapting that output for multiversioned purposes. Students will learn a new NLE platform and more advanced digital editing techniques and skills. Integration of Milwaukee PBS station facilities, using Avid Media Composer, Mass and shared storage systems, Media Access Management, and remote offline editing via Avid Media Central, plus preparing and outputting finished sequences for delivery, will be emphasized. Prerequisite(s): Complete TV-112.

**TV-144** **Credits: 3**

## **Graphic Design for Video Integration**

This course will focus on creating graphics for use in broadcast, as well as other video applications, from tape to DVD to web. Integration of station facilities, using FX/DEKO platform for TV graphics techniques, plus understanding how to use popular software, such as Photoshop, in creating video graphics. Prerequisite(s): Complete WEBDEV-102.

**TV-149** **Credits: 3**

## **MCA CO-OP 1**

Advanced practical media experience may be obtained through positions directly related to student career goals. Students may enhance their educational skills through projects and assignments in collaboration with MATC's Television and Video Production students. MCA Co-op 1 focuses on integration of students in visual- and audio-related degree programs into comparable professional departments and projects. Prerequisite(s): Complete TV-123 or TV-124, or instructor consent.

**TV-160** **Credits: 1**

## **Intro Operational Engineering**

This course is a survey of basic television systems and equipment that embraces the technologies and techniques of video operations associated with broadcast stations, studio and remote productions, and professional TV approaches to transmission of audio and video content. It introduces the student to engineering concepts associated with video cameras, AV files, signal flow and operational understanding, incorporating broadcast engineering approaches. Prerequisite(s): Must be admitted to the Television and Video Production program

(10-701-1) or the TV and Video Studio Production Assistant program (31-701-2). Complete TV-101. Completion of or currently enrolled in TV-105 and TV-121.

**TV-161** **Credits: 2**

## **Intermediate Operational Engineering**

This course follows TV-160 as the hands-on complement to operation broadcast engineering. It builds on the basics of TV engineering for production and creative content professionals, and introduces the tools, techniques and processes associated with a variety of technical operations at a broadcast facility. Students utilize the production and engineering systems employed at Milwaukee PBS studios and in remote trucks with training designed to familiarize the student with tools they will encounter and operate, troubleshoot, and maintain at a large television station. Prerequisite(s): Complete TV-160. Completion of or currently enrolled in TV-110.

**TV-181** **Credits: 1**

## **Video in Society**

This orientation course is designed to familiarize the entering student with some of the employment and career opportunities and skills that he or she would acquire through the Television and Video Production program. Prerequisite(s): Completion of or currently enrolled in TV-101 and DCC-150

## **WEBDEV – Web Development (Department 201)**

**WEBDEV-102** **Credits: 3**

### **Introduction to Digital Media**

In this introductory course, students work with software used in the development of media projects. An overview of graphics software, such as Photoshop and Illustrator, are presented. Project-based assignments provide a basic understanding of the interactive media production process.

**WEBDEV-114** **Credits: 3**

### **Web Development With HTML/CSS**

Students develop HTML5 and CSS3 skills needed for the development of functional websites. Emphasis is placed on writing code, designing with Cascading Style Sheets, file management, debugging and publishing of websites. The final project is a complete website that students will develop by writing the necessary HTML and CSS code.

**WEBDEV-119** **Credits: 3**

### **Web Design Overview**

This course focuses on web design trends and best practices. Students are introduced to the fundamental concepts as well as the technical, creative and aesthetic aspects of web design and development. Some of these concepts include project research, information architecture, web analytics, responsive web design, web typography, graphic file formats, frameworks and content management systems. Students are encouraged to collect and utilize online resources that parallel industry standards.

**WEBDEV-120** **Credits: 3**

### **Audio and Video Production for the Web**

This course provides an overview of audio and video production techniques for developing media for the web. Deployment for YouTube, as well as HTML5 audio and video controls, will be covered.

**WEBDEV-123** **Credits: 3**

### **Interactive Design**

This course will explore the core design components that make up the majority of interactive visual media. Focus will be placed on the process of user-centered design, the issues of usability and the methods for evaluating various interactive interfaces. Students will be expected to participate in critiques. Prerequisite(s): Complete WEBDEV-102.

**WEBDEV-124** **Credits: 3**

### **Database Web Design With PHP and MySQL**

Students will learn the development techniques of creating a database-driven website. Concepts will be taught in PHP and MySQL to communicate with the database and display dynamic information. Publishing a website with database capabilities is the goal of this course. Prerequisite(s): Complete WEBDEV-114 and ITDEV-117.

**WEBDEV-132** **Credits: 3**

### **Rich Media for the Web**

This course provides students the knowledge and hands-on practice needed to integrate rich media solutions into websites. This course focuses on web marketing principles and effective integration of animation, sound and video to implement advertising solutions. The course utilizes WYSIWYG software as well as introduces development concepts to create animation and interactivity for the web. Prerequisite(s): Completion of or currently enrolled in WEBDEV-119, WEBDEV-114 and WEBDEV-123.

**WEBDEV-133** **Credits: 3**

### **Content Management Systems**

Students learn web development concepts as they apply to content management systems (CMS). Students will develop websites using a variety of open-source CMS tools such as WordPress and Joomla. The final project is a website that students will develop using an open-source CMS tool. Prerequisite(s): Complete WEBDEV-114.

**WEBDEV-134** **Credits: 3**

### **Responsive Web Design**

Students learn responsive web design concepts for adaptive display on mobile devices, such as smartphones and tablets, as well as traditional monitors with various screen resolutions. Students learn about HTML5 and CSS3 media queries. Some topics include popular responsive frameworks such as Bootstrap and Foundation. The final project is the development of a complete responsive website. Prerequisite(s): Complete WEBDEV-114, WEBDEV-119 and WEBDEV-123.



## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

### WEBDEV-135 Credits: 3

#### User Experience for the Web

This course provides a conceptual and practical overview of the processes of creating a user-centered design by focusing on the research, content strategy and design phases specific to implementing a user-friendly solution for web design. Students will engage in the research phase to understand business and user needs, goals, and tasks by utilizing various research methods to develop a solid content strategy and interactive prototype to deliver a compelling user experience.

### WEBDEV-140 Credits: 3

#### Web Dev With JavaScript/jQuery

Students learn JavaScript and how to connect to the jQuery library to develop more interactive websites. Students will learn about functions, event handlers, decision statements and other advanced coding techniques. Some topics include image carousels, lightboxes and other dynamic features. The final project is a website that students will develop incorporating JavaScript and jQuery. Prerequisite(s): Complete WEBDEV-114.

### WEBDEV-143 Credits: 3

#### User Experience – UE 2.0

This course will focus on user experience (UE) in determining the level of successful communication and retention realized by the consumer and client; whether it be web interface, exhibit design, 3D environment, mobile platform, etc.

### WEBDEV-198 Credits: 1

#### Internship

This course prepares students to work in their field of study by giving them practical real-job experiences. The fundamentals of resume writing, interviewing, networking and job search techniques are discussed. Students are expected to search, interview and obtain an internship during this time. Prerequisite(s): Complete WEBDEV-134 and INTRN-796.

### WEBDEV-199 Credits: 3

#### Portfolio

Students prepare to market themselves in the workplace by creating a professional web-based portfolio. Students are expected to research and implement online self-promotional best practices. Ideally this class is taken during the student's final semester. Participation in an annual portfolio exhibit is required. Some independent research is expected during this process. Prerequisite(s): Complete WEBDEV-133 or WEBDEV-134. Completion of or currently enrolled in WEBDEV-140.

## WELD – Welding (Department 442)

### WELD-300 Credits: 1

#### Fundamentals of Arc Welding

The student develops fundamental knowledge and skill in the safe use of shielded metal arc welding equipment. Emphasis is on consistent bead development in the flat position with several different types of commonly used electrodes.

### WELD-301 Credits: 2

#### General Arc Welding

This course involves welding in multiple positions on carbon steel using E6013, E6010 and E701B electrodes. Emphasis is on following written directions for exercises and learning to visually assess your performance to AWS standards. Prerequisite(s): Complete WELD-300.

### WELD-302 Credits: 2

#### Specialized Arc Welding

Emphasis is placed on joint preparation and welding procedures. Proper techniques of using shielded metal arc alloyed electrodes are presented. In addition, preparation, treating and evaluation of coupons that pertain to structural codes are covered. Prerequisite(s): Complete WELD-301.

### WELD-305 Credits: 1

#### Fundamentals of Oxyfuel Welding

Students develop a fundamental understanding and skill in the use of oxyacetylene welding equipment with an emphasis on safety. Basic joint configurations in the flat and horizontal position and oxyfuel torch cutting will be used.

### WELD-306 Credits: 2

#### Fundamentals of Gas Tungsten Arc Welding

The purpose of this course is to give students a fundamental knowledge of the gas tungsten arc welding process. The basic principles of equipment setup and operation are taught. Instruction is provided on the proper techniques of welding mild steel sheet metal in and out of position.

### WELD-307 Credits: 2

#### Advanced Gas Tungsten Arc Welding (TIG)

This course is designed to give students instruction in the art of TIG welding plate and pipe. Proper equipment operation and setup for nonferrous alloys such as aluminum are also taught. Students also weld stainless steel sheet metal in and out of position. Prerequisite(s): Complete WELD-306.

### WELD-313 Credits: 5

#### Shielded Metal ARC Welding

Provides industrial application of shielded metal arc welding in all positions on carbon steel. Provides industrial application of thermal cutting on carbon steel. Students apply safety according to industry standards and ANSI A49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard: AWS/ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders. SMAW is one of the four areas of welding concentration in the one-year technical diploma program.

### WELD-314 Credits: 5

#### Gas Tungsten ARC Welding

Provides basic skills in oxyfuel welding, brazing and cutting on carbon steel. Provides industrial application of gas tungsten arc welding in all positions on carbon steel, stainless steel and aluminum in a lab setting. Students apply safety

according to industry and ANSI Z49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard AWS/ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders. GTAW and oxyfuel welding are one of four areas of welding concentration in the one-year technical diploma program.

### WELD-315 Credits: 5

#### Gas Metal ARC Welding Practices

Provides industrial application of gas metal arc welding in all positions on carbon steel. Provides industrial application of flux cored arc welding in all positions on carbon steel. Students apply safety according to industry standards and ANSI A49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard AWS/ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders. GMAW and FCAW are two of the four areas of welding concentration in the one-year technical diploma program.

### WELD-316 Credits: 5

#### Layout and Setup Practices

Provides a focus on the development of layout and basic fabrication skills through a sequence of industrial and AWS SESE weldments that involve the use of GMAW, GTAW, FCAW, and SMAW. Students will learn to utilize industrial equipment, power tools, band tools, and layout tools. Students will apply advanced welding skills. Students apply safety according to industrial standards and ANSI A49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard AWS/ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders Layout and Setup Practices is the final area of concentration in the one-year welding diploma program.

### WELD-325 Credits: 5

#### Basic Heavy Plate Processes

Students who complete this Basic Heavy Plate Processes welding course along with Advance Heavy Plate Processes (WELD-329) are eligible for entry-level employment in some of the leading heavy plate employers in the MATC District. Emphasis will be FCAW with 1/16th and 3/32 diameter electrodes. Air carbon arc cutting and gouging will also be addressed. Employment is not guaranteed to anyone; you must prove your welding skills and core abilities such as showing up every day and on time. Most employers engage in strict preemployment drug testing. Prerequisite(s): WELD-327 or WELD-315

### WELD-326 Credits: 1

#### Fundamentals of Semi-Automatic Wire Welding

The student develops fundamental knowledge and skill in the safe use of semi-automatic wire welding equipment. Topics discussed include joint details and distortion control, GMAW weld faults, welding, metallurgy, and weld symbol interpretation.



# WELD – WELDTC

**WELD-327** **Credits: 2**

## **Specialized Semi-Automatic Wire Welding**

Welding skills are developed through the use of the semi-automatic solid and cored wire welding processes, such as gas metal arc, flux cored and submerged arc. Prerequisite(s): Complete WELD-326.

**WELD-328** **Credits: 2**

## **Flux Core Arc Welding**

This is a continuation of the concepts and skills in wire welding learned in WELD-327. Emphasis is on out-of-position welding on common joints. Prerequisite(s): Complete WELD-327.

**WELD-329** **Credits: 5**

## **Advanced Heavy Plate**

This course is a continuation of WELD-325 Basic Heavy Plate Processes. There is an emphasis on advanced welding techniques using 1/16th and 3/32nd electrodes with FCAW. Students will complete full penetration welds utilizing carbon arc gouging and finish grinding techniques. The training will mimic practical situations one would encounter working in the heavy plate industry today. Employment is not guaranteed to anyone upon completion. You must prove your welding skills and core abilities such as showing up every day and on time. Most employers engage in strict drug testing that can go back as far as six months. Prerequisite(s): Complete WELD-325.

**WELD-340** **Credits: 2**

## **Welding for Auto Body Technicians**

Skills for the auto body shop are stressed during instruction on the use of the oxyacetylene torch and arc and wire welding equipment to complete bead, butt, lap and fillet welds.

**WELD-350** **Credits: 1**

## **GTAW Processes**

Safe working habits in handling oxyfuel and gas tungsten arc equipment are developed. The principles for applying oxyfuel on different types and sizes of materials in various joint configurations are stressed. Commercial production, handling and storage of compressed gases that are used in GTA and oxyfuel processes are discussed. Introduction to metallurgy is given.

**WELD-351** **Credits: 1**

## **Shielded Metal Arc Welding Processes**

Instruction is offered in the principles of shielded metal arc welding as applied to different types and thicknesses of metals in various joint configurations. The principles of various testing methods for assuring weld quality are also presented, along with the proper techniques and applications of the SMAW process. Introduction to the weldability of metals is given.

**WELD-352** **Credits: 1**

## **Gas-Shielded Arc Welding Processes**

The principles and theory of the semi-automatic wire welding processes as applied to different types and thicknesses of metals in various joint configurations are emphasized. Various testing methods used for assuring weld quality are covered.

**WELD-354** **Credits: 2**

## **Layout and Print Reading Practices**

Develops advanced skills in print reading through utilization of complex industrial prints that feature AWS welding symbols, ISO welding symbols, American Standard dimensions, SI Metric dimensions, isometric drawings, section drawings, material lists and assembly drawings.

Students get hands-on experience working with prints related to the work environment for welding. Students will learn to create drawings by utilizing dividers, square, scales and protractors from existing drawings, written directions, and sample mock-ups. The skills in this course transfer to the Layout and Setup course in the lab. Prerequisite(s): Complete WELD-360 or WELD-361 and WELD-362 and WELD-380.

**WELD-360** **Credits: 2**

## **Blueprint Reading for Welders**

Develops fundamental skills in print reading through the use of basic lines and views, basic sketching, dimensioning techniques, title block, notes, sections and details, and types of prints. Emphasis is placed on orthographic projection and isometric views to help the learner develop the visual relationship between an object and a print in the first weeks of the course. Students get hands-on experience with prints for analysis of dimensions, welding symbols, material list, parts of a print and all the conventions used in the workplace. Students will learn basic weld joints, welding symbols and knowledge of AWS standards for welding symbols.

**WELD-380** **Credits: 1**

## **Welding Trades Mathematics**

Provides a focus on mathematics used in industry including fractions, decimals, percent, tolerance, various measurements, the metric system and geometry. Students apply contextual word problems while learning numeric functions. Basic mathematical processes and use of a calculator should be known prior to taking this course.

## DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

### **WELDTC – Welding Technology (Department 621)**

#### **WELDTC-101 Credits: 2** **Welding Theory 1**

This course covers the theory and application of the gas tungsten arc welding and oxyfuel welding and cutting processes. The major safety standard, ANSI Z49.1 Safety Welding and Cutting, is studied in detail.

#### **WELDTC-102 Credits: 3** **Welding Theory 2**

This course covers theory and process control of the major consumable arc welding processes: SMAW, GMAW, FCAW and SAW. Computer-based information systems are used to identify, research and write four technical papers in the lab portion of the course.

#### **WELDTC-105 Credits: 3** **Weldability of Materials**

This course examines the characteristics of weldable materials and their properties that affect weldability: “the capacity of a material to be welded under the imposed fabrication conditions into a specific, suitably designed structure and to perform satisfactorily in the intended Service” (AWS A3.0). Students gain the theoretical and technical knowledge needed to research and develop preliminary welding procedures for joining the major weldable materials. Prerequisite(s): Completion of or currently enrollment in WELDTC-102.

#### **WELDTC-107 Credits: 3** **Fabrication Graphics**

The skills needed to interpret and apply the information conveyed by conventional and computer-generated fabrication blueprints are

developed. Student receives hands-on experience in operating a CAD system to generate and manipulate fabrication databases.

#### **WELDTC-111 Credits: 4** **Welding Practice 1**

The purpose of this course is to give students hands-on experience in the setup and operation of welding with the gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW) processes. Students will complete various lab exercises, demonstrating the ability to use both processes to perform welds that meet AWS D1.3 welding code for materials under 1/8-inch in thickness. Upon completion of this course, students will be able to understand a written welding procedure, read weld symbols, properly set up welding equipment and perform welds in all positions on various light gauge materials. Prerequisite(s): Completion of or currently enrolled in WELDTC-101.

#### **WELDTC-112 Credits: 4** **Welding Practice 2**

The purpose of this course is to give students hands-on experience in the setup and operation of shielded metal arc, gas metal arc and flux-cored arc processes to weld the basic joints in all positions to commercial and code quality standards. Prerequisite(s): Completion of or currently enrolled in WELDTC-102.

#### **WELDTC-113 Credits: 3** **Welding Techniques 1**

The purpose of this course is to give the theoretical and technical knowledge needed to develop, write and qualify welding procedures and welders to written specifications and codes and to pass the National Certified Welding Inspector's Exam. Prerequisite(s): Complete WELDTC-101 or WELD-350 or WELD-351 or WELD-352.

#### **WELDTC-114 Credits: 3** **Welding Techniques 2**

This course gives students hands-on experience in developing, writing and testing welding procedures to the major welding codes. Students also test and qualify welders to the major codes. Prerequisite(s): Completion of or currently enrolled in WELDTC-113.

#### **WELDTC-135 Credits: 4** **Automated Welding Processes**

Students gain hands-on experience with automated welding processes. This includes setup, programming, operation and troubleshooting of automated welding equipment, including industrial robots and weld fixtures. Prerequisite(s): Complete WELDTC-111, WELDTC-112 or WELD-300. Completion of or currently enrolled in WELDTC-140.

#### **WELDTC-140 Credits: 4** **Manufacturing Applications for Robots**

Students gain hands-on experience with automated welding processes. This includes set up, programming, operation and troubleshooting of automated welding equipment, including industrial robots and weld fixtures. Prerequisite(s): Complete WELDTC-111 or WELD-315.

#### **WELDTC-181 Credits: 1** **Welding Technology Orientation**

This course is designed to assist the students in becoming acquainted with the educational and vocational opportunities at MATC and to help them make satisfactory adjustments to their school environment. It also gives them an overview of technical careers in the welding field.

# COMMUNITY EDUCATION

Whether you are a working adult interested in completing high school or learning English, MATC has programs that can help. The college offers Adult High School, GED and HSED, and other options. In addition, students can learn English at community-based organizations conveniently located throughout the district. In the following pages, learn about these programs and the courses available.

## ADULT HIGH SCHOOL

### Earn a High School Diploma at MATC

If you are age 16 or older and want to earn your high school diploma, MATC's Adult High School is the place. Students under the age of 18 must attend a school district that has a partnership agreement or contract with MATC. Our comprehensive high school is accredited by Cognia (9115 Westside Parkway, Alpharetta, GA 30009; 1-888-413-3669), and offers a full range of academic and student support services. Courses are held in person at the Downtown Milwaukee Campus and are offered online.

Students with no previous high school experience complete 46 credits\* of coursework. Students who have earned credits at other schools get advanced standing and complete the remaining credits needed for graduation. At least six credits must be taken at MATC.

See [matc.edu](http://matc.edu) and search **Adult High School** for information on getting started.

\*Each Adult High School credit is equal to one-half of a Carnegie Unit, which is the credit system most commonly used by U.S. high schools. Classes are 76-80 hours per quarter or semester.

### ADDITIONAL MATC ADULT HIGH SCHOOL OPPORTUNITIES FOR TEENS AND ADULTS

#### Credit Recovery

High school students age 16 and older may register for classes to make up high school credits.

#### College Prerequisites

High school graduates who need high school credits in biology, algebra, geometry or chemistry as prerequisites for college programs can take these courses through Adult High School.

#### Emerging Scholars Program

Through this program, students between the ages of 16 to 18 years old who meet certain requirements may take classes leading to a high school diploma at MATC.

For more information about the Adult High School, email [communityed@matc.edu](mailto:communityed@matc.edu).

### Adult High School Credits

Communications <i>One course must be a writing course</i>	8
Mathematics <i>Two credits must be in algebra</i>	6
Social Studies <i>Two credits must be in American history/government</i>	6
Science	6
Computers	1
Career Education	1
Technical/Occupation	1
Success Strategies	1
Financial Literacy	1
Physical Education/Health	3
Electives	12
<b>TOTAL CREDITS</b>	<b>46</b>

## GED AND HSED

If you need preparation before taking the General Educational Development (GED) Exams, MATC can help you learn what you need to know.

Classes are offered at MATC campuses and at community-based organizations (CBOs).

See [matc.edu](http://matc.edu) and search **GED and HSED** for details on getting started, or email [communityed@matc.edu](mailto:communityed@matc.edu).

For GED information in Spanish, call 414-302-2683.

To earn a High School Equivalency Diploma (HSED), you will complete all of the steps for the GED certificate, plus:

- Complete a health requirement by either passing a test, completing half of a credit in health while in high school, or completing an MATC Adult High School health course.
- Complete MATC's Employability Skills course.

There are more methods of earning an HSED. Email [communityed@matc.edu](mailto:communityed@matc.edu) for more information.

### MATC HSED 5.09 – HIGH SCHOOL COMPLETION OPTION PROGRAM

This competency-based high school completion option is personalized for each student, taking into account prior learning experiences. The time required to complete the

program is flexible and determined by the student's individual progress. Students may fulfill the subject requirements through high school credits, GED tests, college coursework or competency-based courses. Weekly participation is mandatory and tracked to ensure students remain on track for timely completion. The program provides participation options in both in-person and online formats, available in English and Spanish.

HSED 5.09 program requirements:

- At least age 18½ years old
- Completion of the TABE assessment with a scale score of 519 in reading

For more information, email [communityed@matc.edu](mailto:communityed@matc.edu).

## INTEGRATED EDUCATION TRAINING PROGRAM (IET)

Earn college credits! Attain high school credentials and/or improve your English at the same time with the IET program! The program helps you learn skills to join the workforce or prepare to enroll in one of MATC's 180-plus degree or diploma programs while getting your high school diploma.

IET program requirements:

- Be at least 18 years old.
- Enroll in Adult High School, GED/HSED or ESL classes.
- Have not taken college classes in the United States previously.
- Attend an IET general information session.
- Meet with IET academic support specialist.
- Score a NRS level 4 or above on TABE reading.

## BASIC SKILLS

Basic Skills instruction is geared to those who do not have a high school diploma. Instruction levels range from grades 0-12. Courses are useful for those who plan to enter a college program at MATC, pass the GED test, or enter MATC's Adult High School program to earn a high school diploma.

Basic Skills subjects include reading, mathematics, science and writing. Courses are offered at MATC campuses and at community-based organizations (CBOs) throughout metro Milwaukee. Spanish-language courses are offered at some locations. For information, email [veleza@matc.edu](mailto:veleza@matc.edu) or call 414-297-7923.

## LEARN ENGLISH

### English as a Second Language (ESL)/English Language Learners (ELL) Programs

MATC's programs help students learn English so they may function more effectively at work, at home and in the community. The ESL program also prepares students for college coursework.

MATC provides English language instruction to a linguistically diverse (more than 30 languages) and culturally

diverse (50 countries) population. The student population comes from all educational and ethnic backgrounds. The program serves students living in Milwaukee and includes resident immigrants, refugees and U.S. citizens.

ESL/ELL students learn in a variety of ways including group or individualized, computer-assisted language learning, weekend classes and online.

A student may choose courses in oral language development, vocabulary improvement, reading and writing skills, preemployment English, and computer skills. Students also can get help in preparing for citizenship.

Outreach programs for business and industry are available.

## ESL/ELL CONTACT INFORMATION

**Downtown Milwaukee, Room S216**  
700 West State Street  
414-297-6267  
[esmilw@matc.edu](mailto:esmilw@matc.edu)

**Mequon**  
5555 West Highland Avenue  
262-238-2238  
[eslmequon@matc.edu](mailto:eslmequon@matc.edu)

**Oak Creek, Room A152**  
6665 South Howell Avenue  
414-571-4503  
[esloakcreek@matc.edu](mailto:esloakcreek@matc.edu)

**Walker's Square**  
816 West National Avenue  
414-297-8822

**West Allis, Room 105**  
1200 South 71st Street  
414-456-5302  
[eslwest@matc.edu](mailto:eslwest@matc.edu)

## COMMUNITY-BASED ORGANIZATIONS

English as a Second Language classes are offered at various community-based organizations (CBOs) throughout Milwaukee. These locations provide accessible education for individuals who cannot attend classes on campus,

MATC offers flexible scheduling with classes available in the morning, afternoon, and evening. Options include both in-person and virtual formats to meet diverse needs.

For more information, call Jacqueline Jolly, 414-297-6427.

### Bilingual Classes and Programs

To meet employer and community needs of the growing Hispanic and Hmong populations within the Milwaukee area, MATC offers courses and programs taught in Spanish/Hmong and in English.

For example, classes assist students who are obtaining their GED in Spanish. Occupational English-language-acquisition courses help students acquire the English language skills needed to transition into MATC's bilingual degree, diploma and certificate programs. Bilingual courses also are offered in business, health, liberal arts, childhood education and other areas.

For the list of bilingual classes offered in a semester, visit [matc.edu](http://matc.edu) and search **Course Catalog**; under Course Type, select Bilingual.

For information about bilingual programs, call 414-297-8882. Also visit [matc.edu](http://matc.edu) and search **Bilingual Services**.



# 700-LEVEL COURSES

## ALPHABETICAL LIST OF SUBJECTS (DEPARTMENT NUMBERS ARE IN PARENTHESES)

<b>BIOSCI</b> .....	Biological Science (856)	<b>INTRN</b> .....	Internship (862)
<b>CAREER</b> .....	Career Education (862)	<b>MATH</b> .....	Mathematics (854)
<b>CHEM</b> .....	Chemistry (856)	<b>MATHB1</b> .....	Math/Basic Skills Level 1 (854)
<b>COMMB1</b> .....	Communications/Basic Skills Level 1 (851)	<b>MATHB2</b> .....	Math/Basic Skills Level 2 (854)
<b>COMMB2</b> .....	Communications/Basic Skills Level 2 (851)	<b>MATHB3</b> .....	Math/Basic Skills Level 3 (854)
<b>COMMB3</b> .....	Communications/Basic Skills Level 3 (851)	<b>MATHB4</b> .....	Math/Basic Skills Level 4 (854)
<b>COMMB4</b> .....	Communications/Basic Skills Level 4 (851)	<b>MATHB5</b> .....	Math/Basic Skills Level 5 (854)
<b>COMMB5</b> .....	Communications/Basic Skills Level 5 (851)	<b>MATHB6</b> .....	Math/Basic Skills Level 6 (854)
<b>COMMB6</b> .....	Communications/Basic Skills Level 6 (851)	<b>MATHCR</b> .....	Mathematics Co-Requisite (854)
<b>COMMHS</b> .....	Communications – Adult High School (851)	<b>MATHHS</b> .....	Math – Adult High School (854)
<b>COMPUB</b> .....	Computer Basics – Adult Basic Education/ABE (860)	<b>MATHPH</b> .....	Math – Post High School (854)
<b>ENG</b> .....	English (851)	<b>OFFTEC</b> .....	Office Technology (862)
<b>ENGE</b> .....	English Enhanced (851)	<b>SCIHS</b> .....	Science – Adult High School (856)
<b>ESL</b> .....	English as a Second Language (861)	<b>SCIPH</b> .....	Science – Post High School (856)
<b>HISTHS</b> .....	History – Adult High School (853)	<b>SOCHS</b> .....	Social Science – Adult High School (859)
<b>HLTHHS</b> .....	Health – Adult High School (857)		

In this catalog, a course is identified by a grouping of two to six letters or letters and a numeral, followed by a hyphen and three numbers. For example, **CAREER-710**: The letters **CAREER** form the alphabetical code to identify the course's subject: Career Education.

### BIOSCI – Biological Science (Department 856)

#### BIOSCI-700 **Credits: 1** A & P Prep Course

This course prepares students for entrance to and success in General Anatomy and Physiology (BIOSCI-177) and Anatomy and Physiology I (BIOSCI-201) by offering a general review of study skills, basic math, chemistry, cell biology and terminology, all concepts essential to success in General Anatomy and Physiology.

### CAREER – Education (Department 862)

#### CAREER-710 **Credits: 3** Exploring Technical Careers

Through presentations in training labs, hands-on shop assignments and on-site employer visits, students acquire familiarity with skills, job opportunities and salary expectations in the electricity/electronics industry. Emphasis is placed on technical careers in the above areas.

#### CAREER-719 **Credits: 3** Healthcare Concepts and Careers

This course examines the healthcare industry and explores various health careers. Concepts related to the various health careers, such as medical terminology, anatomy and physiology, are also included.

#### CAREER-725 **Credits: 1** Career Exploration Seminar

Students engage in self-assessment activities that match their strengths and needs to career choices. Using web-based information, students research and compare careers with special attention to educational preparation needed for success. Students will tour MATC, interview counselors, staff and/or faculty as they prepare a career portfolio. Non-traditional employment receives special attention.

#### CAREER-740 **Credits: 3** Success Strategies for School

Students identify the characteristics of a successful student, identify which characteristics they lack and work to develop those traits. Students identify their learning styles and how they can use their styles to aid themselves in learning.

#### CAREER-741 **Credits: 3** Career Preparation and Exploration

Analysis of strengths, weaknesses, personalities, aptitudes, attitudes, etc., is covered. Students match their strengths and needs to job opportunities, and assess job availability. Up-to-date job openings are examined, and students research two careers.

#### CAREER-750 **Credits: 1** GED Orientation Career Planning

In this class, participants are provided with an overview of the various options available to

those persons seeking high school equivalency diplomas. This class, which must precede the taking of the GED/HSED tests, also includes interest inventory and career decision-making activities that help participants develop a better focus on career options based on backgrounds, skills and job trends.

#### CAREER-757 **Credits: 1** GED 2 Employability Skills

This course is designed to acquaint high school equivalency diploma students with major employment trends in the 21st century. In conjunction with the review and completion of sample applications, students are introduced to varied types of resume and cover letter formats. Opportunities to explore the interview process are also provided, coupled with information on available resources pertaining to the development of academic and personal management, and teamwork skills.

### CHEM – Chemistry (Department 856)

#### CHEM-701 **Credits: 1** Science/Chemistry Prep

This course is designed to prepare students for a rigor of science classes. This prep courses will teach you fundamental math required for sciences, analytical reading and study skills.

## Communication (Department 851)

### Communications Basic Skills Level 1

**COMMB1-711** Credits: 4  
**Basic Communications 1**

Level 1 communication emphasizes writing simple notes and messages on familiar situations. Learners who successfully complete Level 1 Communication achieve beginning basic education benchmarks according to NRS guidelines.

### Communications Basic Skills Level 2

**COMMB2-721** Credits: 4  
**Basic Communications 2**

Level 2 Communication emphasizes basic writing tasks related to life roles, such as completing medical forms, order forms and job applications. Learners write short reports and messages to fellow workers. Learners self and peer edit for spelling and punctuation. Learners who successfully complete Level 2 Communication achieve low intermediate education benchmarks according to NRS guidelines.

### Communications Basic Skills Level 3

**COMMB3-731** Credits: 4  
**Basic Communications 3**

Level 3 Communication emphasizes writing simple narrative descriptions and short essays on familiar topics. Learners complete forms, such as job applications, and strive for consistent use of basic grammar and punctuation. Learners who successfully complete Level 3 Communication achieve high intermediate education benchmarks according to NRS guidelines.

### Communications Basic Skills Level 4

**COMMB4-741** Credits: 4  
**Basic Communications 4**

Level 4 Communication emphasizes writing complete compound and complex sentences, personal notes, and letters that accurately reflect thoughts. Learners strive for writing that is organized and cohesive with few mechanical errors. Learners who successfully complete Level 4 Communication achieve low adult secondary education benchmarks according to NRS standards.

### Communications Basic Skills Level 5

**COMMB5-751** Credits: 4  
**Basic Communications 5**

Level 5 Communication emphasizes using varied and complex sentence structure with

few mechanical errors. Learners' writing is cohesive with clearly expressed ideas supported by relevant detail. Learners who successfully complete Level 5 Communication achieve high adult secondary education benchmarks according to NRS guidelines.

### Communications Basic Skills Level 6

**COMMB6-761** Credits: 4  
**Basic Communications 6**

Level 6 Communication emphasizes creating written documents, including a research paper. Learners express both written and spoken ideas in a clear, concise manner in a variety of settings. Learners who successfully complete Level 6 Communication are prepared to enter postsecondary education and/or obtain and maintain employment.

### Communications Adult High School

**COMMHS-703** Credits: 3  
**World Literature 1**

The major focus is short fiction, poetry and drama. Students will learn literary terms and story elements. Students will develop an understanding of the characteristics of various literary genres. Students will explore the works of culturally diverse authors, playwrights and poets.

**COMMHS-705** Credits: 3  
**American Literature 1**

During this junior-level English course, American literature from the American colonial period to post-Civil War days is studied. A sampling of authors studied will include Nathaniel Hawthorne, Henry Wadsworth Longfellow, Louisa May Alcott and Chief Joseph. The mechanics of writing is reviewed as it applies to story responses through word-processed compositions.

**COMMHS-706** Credits: 3  
**American Literature 2**

During this junior-level English course, the study of American literature is continued covering the mid-1800s to modern times. Authors studied include Langston Hughes, Robert Frost, Walt Whitman and Richard Wright. A review of writing complete and effective sentences is done in order to enhance word-processed composition.

**COMMHS-711** Credits: 3  
**Multicultural Literature 1**

This course will study the rich literary genres of a variety of cultures such as African American, Chinese, Indian, Japanese, Jewish, Korean, Latino/Hispanic and Native American. Biographies, essays, poetry and short fiction readings may be supplemented by films to provide a broader appreciation of the literary contributions made by a variety of noted world authors.

**COMMHS-713** Credits: 3  
**Science Fiction Literature**

This English class reads, discusses and analyzes science fiction short stories, novels and films. This course is designed to help students think about the impact rapid changes in medicine, technology and science will have on their future. Great science fiction classics by Isaac Asimov, Ray Bradbury, H.G. Wells, George Orwell, Arthur Clarke and other noted science fiction writers are introduced to students. Based on their readings, students will complete three written reports.

**COMMHS-725** Credits: 3  
**Composition**

Prepares students to compose materials for common purposes and audiences. It provides instruction in the process of writing and the practice of the specific skills needed to communicate effectively for writing in academic and occupational settings. The student will review basic grammar, sentence structure and paragraph development to serve as a stepping stone for perfecting writing skills. Students further develop essay writing skills.

**COMMHS-730** Credits: 3  
**Language Arts Communication 1**

This English class is a combination of literature, grammar and writing. Short stories, poems and plays will be read and discussed. Grammar lessons of sentence structure, parts of speech punctuation and spelling will be taught and incorporated into writing activities. Students learn to understand and appreciate literature and to develop their writing skills.

**COMMHS-731** Credits: 3  
**Language Arts Communication 2**

This English class is a combination of literature, grammar and writing. Short stories, poems and plays will be read and discussed. Grammar lessons of the parts of speech, phrases, clauses, sentences and punctuation will be reviewed and incorporated into writing activities. Students learn to understand and appreciate literature and to develop their writing skills.

**COMMHS-732** Credits: 3  
**English Review and Mastery**

This English class is an intense review of grammar, punctuation, capitalization, phrases, clauses, sentence structure, spelling and vocabulary with a writing component. Writing assignments will include writing paragraphs, business letters, a resume, reports and a research paper.

**COMMHS-750** Credits: 3  
**Speak for Yourself**

This is a speech class designed to emphasize the importance of speaking well to facilitate effective communication. It will give students an opportunity to prepare and deliver speeches. The speeches will focus on everyday situations that one might encounter in family living, at school, at church, at work, in the community and in the world. It will stress that effective communication skills are relevant and very pertinent to being successful.

# 700-LEVEL COURSES

## Computer Basics (Department 860)

### COMPUB-701 Credits: 1 Computer Basics – Adult Basic Education

This introductory course to computers requires no prior experience. Students learn basic functions, terminology, applications, and use of the keyboard and mouse. Topics covered are the history of the computer, computer terminology, operating system, hardware components, software packages and mouse dexterity. Students create simple documents in Microsoft Word. Prerequisite(s): Must be enrolled in a basic skills course.

### COMPUB-768 Credits: 3 Digital Literacy for GED

This course introduces and develops targeted digital literacy skills needed for GED coursework and GED testing and is enhanced with academic computer and technology essentials. Focus is on computer and technology topics and skill sets for GED success that include access, familiarity, and ease of use of GED software and tools. GED computer-based testing fundamentals, Google Drive, Blackboard and computer basics (e.g., navigation, word processing and file management).

### COMPUB-798 Credits: 1 Online Student Readiness

Course introduces skills and methods regarding technology literacy and self-management for first-time online college students. Course learning outcomes focus on skills development for distance learning student success at Milwaukee Area Technical College by exploring the following tools: Blackboard, Self-Service, myMATC and Gmail. Prepares students to be engaged and self-directed in asynchronous learning environments by addressing time management and best practices for online student success.

## ENGLISH (Department 851)

### ENG-700 Credits: 2 Intro to English Foundations

This is a reading- and writing-intensive course that prepares students to succeed in a gateway English course. Learners who successfully complete the English Foundations course will learn active reading strategies, writing strategies, intermediate vocabulary development strategies and written communication skills.

### ENGE-701 Credits: 1 English Foundations 1

This course is designed to help students strengthen their college-level reading, communication and writing skills. This is a reading- and writing-intensive co-requisite course that prepares students to succeed in ENGE-195. This course focuses on building and enhancing reading, communication and writing skills with an emphasis on critical thinking and analysis and facilitating competence in English grammar and paragraph development. Prerequisite(s): Student must be registered in ENGE-195.

### ENGE-702 Credits: 1 English Foundations 2E

The English 201-E CR session is designed to help students strengthen their college-level reading and writing skills. This is a reading- and writing-intensive co-requisite course that prepares students to succeed in ENGE-201. This course focuses on college-level reading and writing skills with an emphasis on critical thinking and analysis. Prerequisite(s): Students must be registered in ENGE-201.

## ENGLISH AS A SECOND LANGUAGE (Department 861)

### ESL-700 Credits: 3 ESL Workshop

The ESL Workshop provides students with an opportunity to improve their English skills by working one-on-one with an instructor and independently at their own pace. Students can be placed in CALL (computer-assisted language learning) programs in which they can work on listening, speaking and pronunciation, grammar, reading, writing, or integrated skills.

### ESL-711 Credits: 5 Beginning ESL Literacy

This course is designed for those students who have minimal reading and writing skills in their native language and have no proficiency in oral or written English.

### ESL-721 Credits: 5 Low Beginning ESL

This course is designed for those students who have minimal proficiency in oral or written English.

### ESL-731 Credits: 5 High Beginning ESL

This course is designed for students who have some ability to function in a limited capacity in oral or written English, but still need assistance.

### ESL-751 Credits: 5 Low Intermediate ESL

Individualized instruction and group study options offer opportunities for improvement in oral and written English for nonnative speakers of the language. A pre-employment and/or pre-academic focus is offered using a variety of instructional strategies.

### ESL-771 Credits: 5 High Intermediate ESL

This course is designed for students who function independently in oral and written English but need more consistency in the control of language skills.

### ESL-791 Credits: 5 Advanced ESL

Individualized and group study options offer opportunities for improvement of oral and written English for more advanced nonnative speakers of English.

### ESL-792 Credits: 3 Citizenship Preparation

This course is structured for those who wish to become U.S. citizens. Instruction will focus on important events in U.S. history and on the organization and functions of federal, state and local governments. There will be practice in writing basic English sentences needed for the citizenship test.

## HISTORY Adult High School (Department 853)

### HISTHS-705 Credits: 3 American History 1

The history of the American people from 1400 to 1876 is covered. The course includes a careful study of the sectional controversy and the Reconstruction period that followed the Civil War.

### HISTHS-706 Credits: 3 American History 2

In covering major developments in United States history from the 1870s to today, the following topics are surveyed: industrialization, the Progressive Era, imperialism, World War I, the 1920s, the Depression and World War II.

## HLTHHS/HEALTH – Adult High School (Department 857)

### HLTHH9-704 Credits: 1 HSED 5.09 - Health

This course explores the concepts of health and wellness as well as human growth and development. It fulfills the health requirement for MATC's P.I. 5.09 HSED program. Prerequisite(s): Instructor consent is required.

### HLTHHS-700 Credits: 3 Wellness and Fitness Education

This lecture and lab course provides students with a contemporary approach to the total wellness concept, which includes physical, emotional, occupational, spiritual and environmental components. Students develop personal plans for lifetime wellness.

### HLTHHS-711 Credits: 3 Adult Recreation 1

Adult recreation class is designed to introduce students to the benefits of participation in fitness and sports activities. The course will expose students to a broad array of recreational opportunities, emphasize instruction and participation rather than competition, and introduce concepts that have potential for lifetime use.

### HLTHHS-712 Credits: 3 Adult Recreation 2

This course is designed to further develop recreational skills and individual fitness techniques. Prerequisite HLTHHS-711.



**HLTHHS-730** Credits: 2

### Health for Adults

This lecture course helps students make a realistic appraisal of their health and supplies them with strategies to improve nutritional awareness, stress management and physical fitness.

**HLTHHS-744** Credits: 2

### CPR and First Aid

This course develops lifesaving skills needed to become certified in American Heart Association Heartsaver and First Aid. Skills include techniques for adult, child and infant victims. Successful course completion will result in a two-year certification.

**HLTHHS-751** Credits: 3

### Body Conditioning 1

This activity class provides students with specific training techniques that are used to develop and enhance muscular strength and endurance. The focus is on improving fitness as well as preparing for the physical demands of daily living.

**HLTHHS-752** Credits: 3

### Body Conditioning 2

This course is designed to teach advanced strategies of body toning and progressive resistance training. Prerequisite HLTHHS-751

## INTERNSHIP (Department 862)

**INTRN-796** Credits: 1

### Employment Success

With an emphasis on polishing your job search and career management skills, this workshop presents practical strategies that prepare students to complete their required internship and to lay the foundation for successful career development. Assignments include researching prospective employers, preparing resumes and cover letters, networking, and a practice interview.

## MATHEMATICS (Department 854)

**MATH-700** Credits: 1

### Math Fundamentals in Context

This course is designed to prepare students for successful completion of entry-level college math courses and will provide a hands-on, contextualized approach to learning mathematics that will help students improve their math skills.

## MATHEMATICS BASIC SKILLS LEVEL 1

**MATHB1-714** Credits: 4

### Basic Arithmetic 1

Level 1 mathematics develops number concepts, mathematical language and whole number topics. Participants learn to count, add and subtract three-digit numbers, and perform multiplication through 12. Learners identify simple fractions and perform other simple arithmetic operations. Learners achieve beginning basic education benchmarks according to NRS guidelines.

## MATHEMATICS BASIC SKILLS LEVEL 2

**MATHB2-724** Credits: 4

### Basic Arithmetic 2

Level 2 Mathematics emphasizes the four basic math operations, using whole numbers up to three digits. Learners can identify and use all basic mathematical symbols. Learners use critical thinking skills to problem-solve, perform computations, estimate results and apply mathematics to real-world situations. Learners achieve low intermediate basic education benchmarks according to NRS guidelines.

## MATHEMATICS BASIC SKILLS LEVEL 3

**MATHB3-734** Credits: 4

### Basic Arithmetic 3

Level 3 Mathematics emphasizes the four basic math operations, using whole numbers and fractions. Learners can determine the correct operation for solving narrative math problems and can convert fractions to decimals and decimals to fractions. Learners achieve high intermediate basic education benchmarks according to NRS guidelines.

## MATHEMATICS BASIC SKILLS LEVEL 4

**MATHB4-744** Credits: 4

### Basic Arithmetic 4

Level 4 Mathematics emphasizes all basic math functions and introduces simple algebraic equations. Learners can perform all basic math functions with whole numbers, decimals and fractions. Learners can interpret and solve simple algebraic equations, tables and graphs, and can develop their own tables and graphs. Learners can use math in business transactions. Learners achieve low-adult secondary education benchmarks according to NRS guidelines.

## MATHEMATICS BASIC SKILLS LEVEL 5

**MATHB5-754** Credits: 4

### Basic Arithmetic 5

Level 5 Mathematics emphasizes applying mathematical concepts, including algebra, geometry, trigonometry and probability. Learners make mathematical estimates of time and space, and apply the principles of geometry to measure angles, lines and surfaces. Learners achieve high adult secondary education benchmarks according to NRS guidelines.

## MATHEMATICS BASIC SKILLS LEVEL 6

**MATHB6-764** Credits: 4

### Basic Arithmetic 6

Level 6 Mathematics emphasizes analyzing nonroutine problems and arriving at a solution by various means. Learners apply algebraic, geometric and trigonometric functions to solve problems.

**MATHCR-701** Credits: 2

### Math Foundations 1

This course is designed as additional support for students taking a specific section of a 100-level MATH class and is required for students taking co-requisite sections of 100-level MATH classes. Student learn the skills needed for success in math. Prerequisite(s): Student must register in MATH-107.

**MATHCR-702** Credits: 2

### Math Foundations 2

This course is designed as additional support for students taking a specific section of a 200-level MATH class and is required for students taking co-requisite sections of 200-level MATH classes. Student learn the skills needed for success in math. Prerequisite(s): Student must register in MATH-200.

## MATHEMATICS ADULT HIGH SCHOOL

**MATHHS-705** Credits: 3

### Survey of Math Concepts

Are you experiencing difficulty remembering your basic (but important) math skills? If so, this course is for you. Topics covered include a review of the properties of the operations on whole numbers, decimals and fractions. Ratios, proportions and percents are reviewed. Also covered are some algebraic topics such as algebraic terminology, exploration of exponents, practice with the order of operations, and an introduction to simple linear equations. Top it all off with applications of these tools to daily life situations.

**MATHHS-707** Credits: 3

### Consumer Math

This course is designed to help you with everyday consumer math skills; math you should and do use all the time. You will learn a wide variety of personal and business math skills.

**MATHHS-716** Credits: 3

### Algebra 1A

This course is equivalent to the first semester of first-year algebra. It begins with performing the basic operations (addition, subtraction, multiplication and division) on signed (+ and -) numbers. The course covers basic algebraic terminology, evaluating expressions, solving equations and inequalities with one variable (letter), and performing the basic operations on expressions.

**MATHHS-717** Credits: 3

### Algebra 1B

This course is equivalent to the second semester of first-year algebra. It begins with the different methods of factoring, and applying these methods to solve quadratic equations and to work with rational expressions (algebraic fractions). This work includes simplifying (reducing) them, setting up and solving proportions, and performing the basic operations of addition, subtraction, multiplication and division on them. Prerequisite(s): Complete MATHHS-716.



# 700-LEVEL COURSES

## **MATHHS-721** Credits: 3 **Geometry 1**

Geometric concepts covered include points, lines, planes, conditional statements, angles, symbols, triangles and proof writing. Tools, techniques and procedures covered include algebraic properties, deductive reasoning, inductive reasoning, definitions, theorems and postulates. Prerequisite(s): Complete MATHHS-717.

## **MATHHS-722** Credits: 3 **Geometry 2**

Geometric concepts covered include volume and surface area of three-dimensional shapes; circles, chords, arcs and tangents; and right triangle trigonometry. Tools, techniques and procedures covered include algebraic properties, deductive reasoning, inductive reasoning, definitions, theorems and postulates.

## **MATHHS-745** Credits: 3 **Advanced Algebra 1A**

This course is equivalent to the first semester of second-year algebra. The course begins with the graphing of lines. Topics include graphing of linear inequalities in two variables; solving linear systems (two lines) using the graphic, elimination and substitution methods; exploring other methods of solving equations; and the study of roots and radicals.

## **MATHHS-755** Credits: 3 **Advanced Algebra 1B**

This course is equivalent to the second semester of the second year of algebra. Topics include counting techniques and probability, a study of quadratics (the parabola, circle, ellipse, and hyperbola), the solution of three equation systems of lines and of nonlinear systems, and the study of matrices, determinants, and exponential and logarithmic functions.

## **MATHEMATICS POST HIGH SCHOOL**

### **MATHPH-707** Credits: 3 **Financial Literacy**

This course is designed to help you with everyday consumer math skills — math you should and do use all the time. You will learn a wide variety of personal and business math skills.

### **MATHPH-716** Credits: 3 **Algebra 1A**

This course has a brief review of fractions and decimals. The main course consists of the basic operations with real numbers, evaluating algebraic expressions, solving equations, and inequalities with one variable, and operations with algebraic expressions.

### **MATHPH-717** Credits: 3 **Algebra 1B**

This course begins with factoring and the solution of quadratic equations by factoring. It also includes rational expressions, ratio and proportion, and concludes with operations with algebraic expressions involving fractions. Prerequisite(s): Complete MATHHS-716 or MATHPH-716.

## **MATHPH-722** Credits: 3 **Geometry 2**

Geometry 1 is extended to include similar polygons, right triangles, circles, construction and logic. Sets that describe areas and volumes, as well as the formulas for such sets, are presented.

## **MATHPH-745** Credits: 3 **Advanced Algebra 1A**

This course is equivalent to the first semester of second-year algebra. The course begins with the graphing of lines. Topics include graphing of linear inequalities in two variables; solving linear systems (two lines) using the graphic, elimination and substitution methods; exploring other methods of solving equations; and the study of roots and radicals.

## **MATHPH-755** Credits: 3 **Advanced Algebra 1B**

This course offers a sampling of matrix algebra, trigonometry, conic section, probability, statistics, progression and series. It is designed to whet the appetite for future mathematical studies.

## **MATHPH-772** Credits: 5 **MATHPH2: Basic Pre-Algebra**

This course is designed for students who have graduated from high school, GED or HSED, and did not earn the necessary math placement score to enter their desired college program. This course covers applications of arithmetic processes and introduces basic mathematical concepts in pre-algebra and geometry. This transition course prepares student to succeed in their next math class (Introductory Algebra and subsequent algebra-related courses).

## **OFFICE TECHNOLOGY (Department 862)**

### **OFFTEC-735** Credits: 3 **Keyboard, Keypad and Windows**

This is a competency-based course for learning the alphabetic and numeric keyboard using the touch method. In addition, the numeric keypad is presented. Students experience hands-on practice using a mouse, menus and Windows accessories. Furthermore, the student will format, type, print, edit and save simple documents using MS Word.

### **OFFTEC-737** Credits: 3 **Business Operations Co-Op Part 2**

Class time consists of a variety of work-related sections designed to improve skills necessary for work with portfolio. Areas covered include database, spreadsheets, math concepts and financial recordkeeping.

### **OFFTEC-738** Credits: 2 **Business Co-Op Work Experience 1**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based, and business portfolio completion.

## **OFFTEC-739** Credits: 3 **Business Operations Co-Op Part 1**

Class time consists of a variety of work-related sections designed to improve skills necessary for work with portfolio. Areas covered include interpersonal relationships and concepts, technology, and international business.

## **OFFTEC-742** Credits: 2 **Business Co-Op Work Experience 2**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based, and business portfolio completion.

## **OFFTEC-743** Credits: 2 **Business Co-Op Work Experience 3**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based, and business portfolio completion.

## **OFFTEC-744** Credits: 2 **Business Co-Op Work Experience 4**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based, and business portfolio completion.

## **SCIENCE – Adult High School (Department 856)**

### **SCIHS-701** Credits: 3 **General Science 1**

Designed to give students a better understanding of the environment, this course demonstrates the importance of the sciences in everyday life. Topics include matter, energy, electricity and heat. Includes class demonstrations and group experiments.

### **SCIHS-702** Credits: 3 **General Science 2**

This course is a study of our changing planet and the makeup of our living world. Topics include geology, weather, climate, the universe, life on earth, ecology, our human body and environmental problems.

### **SCIHS-703** Credits: 3 **Biology 1**

Students obtain an overview of biology and learn about the basic tools for biology, the chemical and structural basis of life, genetics, and microbiology through lecture and labs.

### **SCIHS-704** Credits: 3 **Biology 2**

Students develop an understanding of the anatomy and physiology of animals, with an emphasis on human biology, through lecture, dissections and experiments.

**SCIHS-705** Credits: 3  
**Chemistry 1**

The language and logic of chemistry are developed by studying elements, compounds, and mixtures; atomic structure; the periodic table and periodic law; chemical bonding; the naming of compounds; the writing of formulas; and other topics. Prerequisite(s): Complete MATHHS-716 or MATHPH-716.

**SCIHS-706** Credits: 3  
**Chemistry 2**

Instruction is continued in the laws and principles of chemistry through a study of oxygen, hydrogen, carbon, the properties of gases, the kinetic theory of matter, ionization, solutions, oxidation-reduction, radioactivity and other topics. Prerequisite(s): Complete SCIHS-705 or SCIPH-705.

**SCIHS-750** Credits: 3  
**Physical Science 1**

Physical Science 1 teaches the nature of science while incorporating physics, chemistry, earth science and space science. Topics include nonliving matter, scientific problem-solving, metric measurement, nature of chemicals, periodic tables, force, acceleration, momentum, work, power and machines.

**SCIHS-751** Credits: 3  
**Physical Science 2**

Physical Science 2 is a course designed to teach the nature of science while incorporating physics, chemistry, earth science and space science. Topics include heat and temperature, waves, communication and technology, the solar system, the universe, planet Earth, the atmosphere, and using natural resources.

## SCIENCE – Post High School

**SCIPH-703** Credits: 3  
**Biology 1**

Students will obtain an overview of biology and learn about the basic tools for biology, the chemical and structural basis of life, genetics, and microbiology through lecture and labs.

**SCIPH-704** Credits: 3  
**Biology 2**

Students will develop an understanding of the anatomy and physiology of animals, with an emphasis on human biology, through lecture, dissections and experiments.

**SCIPH-705** Credits: 3  
**Chemistry 1**

The language and logic of chemistry are developed by studying elements, compounds and mixtures; atomic structure; the periodic table and the periodic law; chemical bonding; the naming of compounds; the writing of formulas; and other topics. Prerequisite(s): Complete MATHHS-716 or MATHPH-716.

**SCIPH-706** Credits: 3  
**Chemistry 2**

Instruction is continued in the laws and principles of chemistry through a study of oxygen, hydrogen, carbon, the properties of gases, the kinetic theory of matter, ionization, solutions, oxidation-reduction, radioactivity and other topics. Prerequisite(s): Complete SCIHS-705 or SCIPH-705.

**SCIPH-750** Credits: 3  
**Physical Science 1**

Physical Science 1 teaches the nature of science while incorporating physics, chemistry, earth science and space science. Topics include nonliving matter, scientific problem-solving, metric measurement, nature of chemicals, periodic tables, force, acceleration, momentum, work, power and machines.

## SOCIAL SCIENCE ADULT HIGH SCHOOL

**SOCH9-705** Credits: 1  
**HSED 5.09-Reading for Social Science**

This course explores four main topics related to the social sciences: United States history, world history, economics and geographic regions of the world. It fulfills the social science requirement for MATC's P.I. 5.09 HSED program. Prerequisite(s): Instructor consent is required.

**SOCHS-701** Credits: 3  
**American Government**

A study is made of American democracy. Topics include political principles, documents and the development of rights of a free people. Emphasis is placed upon three major areas: the Congress, the presidency and the Supreme Court.

**SOCHS-704** Credits: 3  
**Economics**

A study of our great challenge to use our limited resources to satisfy unlimited human wants for goods and services. This course attempts to explain how humans and nations resolve this problem.

**SOCHS-709** Credits: 3  
**World Geography I**

World Geography 1 helps students understand that the world has systems that can be compared, analyzed and evaluated through the study of landforms, climates, ecosystems and their interactions. Students will learn that the five themes of place, location, movement, region and human environmental interactions can be applied throughout the globe. In addition, students will look at world events and their impact on countries, cultures, environments and individuals. World Geography 1 will study the geography of the following regions of the world: North America, Central America and South America.

**SOCHS-710** Credits: 3  
**World Geography 2**

World Geography 2 helps students understand that the world has systems that can be compared, analyzed and evaluated through the study of landforms, climates, ecosystems and their interrelationships. Students will learn that the five themes of place, location, movement, region and human environmental interactions can be applied throughout the globe. In addition, students will look at world events and their impact on countries, cultures, environments and individuals. World Geography 2 will study the geography of the following regions of the world: Asia, Africa, Australia, Europe and Antarctica.

**SOCHS-714** Credits: 3  
**Personal Economics**

Personal Economics will utilize the appropriate resources to research, plan, implement and assess a learner's individual short-term and long-term personal economic future. Learners will focus on practical skills that can be applied to improving their personal finances.

**SOCHS-720** Credits: 3  
**Psychology**

The basic concepts, methods and applications of psychology in the daily life of the individual are studied. The student receives a broad introduction to the field of psychology as the science of human behavior.

**SOCHS-750** Credits: 2  
**Civic Literacy**

In this course, the student learns the basic principles expressed in important political documents in U.S. history, as well as the relationships between national, state and local governments.

**SOCHS-761** Credits: 3  
**Sociology**

This course develops an awareness of the social structures, social processes and institutions that make up society. By analyzing the various societal processes and structures, it enables the student to relate to group experiences.

# APPRENTICESHIPS

Earn a wage while you learn a trade. Apprenticeships are formal training agreements for hands-on learning. Employers teach skills of the trade on the job, and classroom instruction reinforces this knowledge. To become an apprentice you must register with the Bureau of Apprenticeship Standards and have an employer sponsor your attendance in classes for one day per week. For more information, visit [matc.edu](http://matc.edu) and search Apprenticeships.

## WHAT IS AN APPRENTICESHIP?

### The Process

The process of becoming an apprentice starts with employment at an apprentice sponsoring company or with a trade union. An apprenticeship is an “earn while you learn” program with a built-in formal training agreement (Apprentice Contract) providing on-the-job training and related classroom instruction provided by MATC. The employer teaches the skills of the occupation. The classroom instruction is theoretical knowledge pertaining to a specific occupation and usually taught at MATC. When unavailable, factory training schools or correspondence courses can be substituted. The term of training may vary from two to five years, depending on the occupation.

### Prospective Earnings

Wages in various occupations vary. Most apprentices begin at approximately 50% of the current skilled wage rate. It has been the practice in most occupations to provide a periodic step increase every month or 1,040 hours and apprentices wages must average 60% of the skilled wage rate during the term of the apprenticeship program.

## TYPES OF APPRENTICESHIPS

### Areas of Interest

Learn more about construction, industrial, information technology (IT) and service apprenticeships:

## CONSTRUCTION REGISTERED APPRENTICESHIPS

### How Do I Apply?

Construction registered apprenticeships are sponsored by local committees, not individual employers. Follow the steps below to jump-start your apprenticeship.

1. Search for a local committee that fits your apprenticeship occupation.
2. Apply directly to the local committee by visiting their website. Satisfy the committee’s minimum entry requirements, which may include an aptitude test, interview and more.
3. The committee will notify qualified applicants as to the next steps.
4. The committee will place apprentices in jobs using a rank order list or letter of introduction.
5. The rank order lists candidates by their accumulative scores. When an employer requests an apprentice, the committee contacts the next apprentice on the list.
6. The committee will provide a letter of introduction stating that the applicant has fulfilled the entry requirements for an apprenticeship. It is then the responsibility of the applicant to find an employer to sponsor their apprenticeship. The committee may provide a list of employers who work with that committee to the applicant to use.

### Apprenticeships

- Construction Electrician
- Environmental Service Technician
- Residential Wirer
- Sheet Metal Worker
- Steamfitter (Construction)
- Steamfitter (Refrigeration)
- Telecommunications (VDV) Installer/Technician

## **INDUSTRIAL REGISTERED APPRENTICESHIPS**

### **How Do I Apply?**

The Department of Workforce Development lists featured sponsors that have apprenticeship opportunities, but applicants apply directly with the employer. Each application process varies depending on occupation and the business. Follow the steps below to begin your journey into apprenticeship.

1. Search for employers that meet your apprenticeship interests and visit [JobCenterofWisconsin.com](http://JobCenterofWisconsin.com) to find job openings and apprenticeships.
2. Satisfy the minimum entry requirements for the individual trade and for the employer.
3. Apply directly to the company that operates an apprenticeship program.

Note: Some employers may limit apprenticeships to current employees, so consider taking another position with the company in the meantime.

### **Apprenticeships**

- Facilities Maintenance Technician
- Industrial Electrician (Maintenance Electrician)
- Industrial Maintenance Mechanic
- Industrial Manufacturing Technician
- Industrial Pipe Fitter
- Machine Repair
- Machine Tool (Machinist)
- Mechatronics
- Tool and Die Maker (Patternmaker)

## **INFORMATION TECHNOLOGY REGISTERED APPRENTICESHIPS**

### **How Do I Apply?**

The Department of Workforce Development lists featured sponsors that have apprenticeship opportunities, but applicants apply directly with the employer. Each application process varies depending on occupation and the business. Follow the steps below to begin your journey into apprenticeship.

1. Search for employers that meet your apprenticeship interests and visit [JobCenterofWisconsin.com](http://JobCenterofWisconsin.com) to find job openings and apprenticeships.
2. Satisfy the minimum entry requirements for the individual trade and for the employer.
3. Apply directly to the company that operates an apprenticeship program.

Note: Some employers may limit apprenticeships to current employees, so consider taking another position with the company in the meantime.

### **Apprenticeships**

- IT Data Analyst

## **SERVICE REGISTERED APPRENTICESHIPS**

### **How Do I Apply?**

The Department of Workforce Development lists featured sponsors that have apprenticeship opportunities, but applicants apply directly with the employer. Each application process varies depending on occupation and the business. Follow the steps below to begin your journey into apprenticeship.

1. Search for employers that meet your apprenticeship interests and visit [JobCenterofWisconsin.com](http://JobCenterofWisconsin.com) to find job openings and apprenticeships.
2. Satisfy the minimum entry requirements for the individual trade and for the employer.
3. Apply directly to the company that operates an apprenticeship program.

Note: Some employers may limit apprenticeships to current employees, so consider taking another position with the company in the meantime.

### **Apprenticeships**

- Arborist
- Barber
- Cosmetologist
- Culinary Cook
- Early Childhood Educator
- Pharmacy Technician



# ACCREDITATION INFORMATION

MATC is accredited by the **Higher Learning Commission**

230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411, 800-621-7440; info@hlcommission.org

Specific MATC academic programs are accredited, approved and/or certified by the following organizations and agencies.

## **Aesthetician**

State of Wisconsin Department of Safety and Professional Services  
4822 Madison Yards Way  
Madison, WI 53705  
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>

## **Aesthetician Skin Care Therapist**

State of Wisconsin Department of Safety and Professional Services  
4822 Madison Yards Way  
Madison, WI 53705  
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>

## **Air Conditioning and Refrigeration Technology**

HVAC Excellence  
P.O. Box 521  
Mt. Prospect, IL 60056  
800-726-9696

[escogroup.org/accreditation/](http://escogroup.org/accreditation/)

## **Anesthesia Technology**

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
9355 - 113th Street N, #7709  
Seminole, FL 33775  
727-210-2350

[caahep.org](http://caahep.org) (search for Anesthesia Technology)

## **Automotive Maintenance Technician**

ASE Education Foundation  
1503 Edwards Ferry Road NE, Suite 401  
Leesburg, VA 20176  
703-669-6650

[aseeducationfoundation.org](http://aseeducationfoundation.org)

## **Automotive Technology – Comprehensive**

ASE Education Foundation  
1503 Edwards Ferry Road NE, Suite 401  
Leesburg, VA 20176  
703-669-6650

[aseeducationfoundation.org](http://aseeducationfoundation.org)

## **Aviation Maintenance Technician – General**

U.S. Department of Transportation  
Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591  
866-835-5322

[faa.gov](http://faa.gov)

FAA (Federal Aviation Administration)  
CFR (Code of Federal Regulations)  
Part 147 Aviation Maintenance Technician School

## **Aviation Technician – Airframe**

U.S. Department of Transportation  
Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591  
866-835-5322

[faa.gov](http://faa.gov)

FAA (Federal Aviation Administration)  
CFR (Code of Federal Regulations)  
Part 147 Aviation Maintenance Technician School

## **Aviation Technician – Powerplant**

U.S. Department of Transportation  
Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591  
866-835-5322

[faa.gov](http://faa.gov)

FAA (Federal Aviation Administration)  
CFR (Code of Federal Regulations)  
Part 147 Aviation Maintenance Technician School

## **Baking and Pastry Arts**

American Culinary Federation Education  
Foundation Accrediting Commission  
(ACFEFAC)  
6816 Southpoint Parkway, Suite 400  
Jacksonville, FL 32216  
904-824-4468

[acfcchefs.org/accreditation](http://acfcchefs.org/accreditation)

## **Barber**

State of Wisconsin Department of Safety and Professional Services  
4822 Madison Yards Way  
Madison, WI 53705  
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Barber/Default.aspx>

## **Cardiovascular Technology –**

### **Echocardiography**

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
9355 - 113th Street N, #7709  
Seminole, FL 33775  
727-210-2350

<https://www.jrccvt.org/>

Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

### **Cardiovascular Technology – Invasive**

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
9355 - 113th Street N, #7709  
Seminole, FL 33775  
727-210-2350

<https://www.jrccvt.org/>

Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

## **Civil Engineering Technology**

Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors

Department of Safety and Professional Services

4822 Madison Yards Way  
Madison, WI 53705  
608-266-2112

<https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>

## **Computer Numerical Control (CNC) Technician**

National Institute for Metalworking Skills  
10565 Fairfax Boulevard, Suite 10  
Fairfax, VA 22030  
703-352-4971

<https://www.nims-skills.org/index.php/accreditation>

## **Cosmetology**

State of Wisconsin Department of Safety and Professional Services  
4822 Madison Yards Way  
Madison, WI 53705  
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Cosmetologist/Default.aspx>

## **Criminal Justice Studies**

Wisconsin Department of Justice  
Training and Standards Bureau  
P.O. Box 7857  
Madison, WI 53707-7857  
608-266-1221

[www.doj.state.wi.us/dles/training-and-standards-bureau](http://www.doj.state.wi.us/dles/training-and-standards-bureau)

## **Culinary Arts**

American Culinary Federation Education  
Foundation Accrediting Commission  
(ACFEFAC)  
6816 Southpoint Parkway, Suite 400  
Jacksonville, FL 32216  
904-824-4468

[acfcchefs.org/accreditation](http://acfcchefs.org/accreditation)

## **Dental Hygiene**

Commission on Dental Accreditation  
211 East Chicago Avenue, Suite 1900  
Chicago, IL 60611  
800-232-6180

[coda.ada.org/accreditation](http://coda.ada.org/accreditation)

## **Diesel and Powertrain Servicing**

ASE Education Foundation  
1503 Edwards Ferry Road NE, Suite 401  
Leesburg, VA 20176  
703-669-6650

[aseeducationfoundation.org](http://aseeducationfoundation.org)

**Dietary Manager**

Program is approved by the Association of Nutrition & Foodservice Professionals (ANFP)  
 P.O. Box 3610  
 St. Charles, IL 60174  
 800-323-1908  
[anfponline.org](http://anfponline.org)

**Early Childhood Education**

National Association for the Education of Young Children (NAEYC)  
 1401 H Street NW, Suite 600  
 Washington, DC 20005  
 800-424-2460  
[naeyc.org/accreditation](http://naeyc.org/accreditation)

**Emergency Medical Technician – Paramedic**

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
 Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)  
 8301 Lakeview Parkway, Suite 111-312  
 Rowlett, TX 75088  
 214-703-8445  
[coaemsp.org](http://coaemsp.org)

**Funeral Service**

American Board of Funeral Service Education  
 992 Mantua Pike, Suite 108  
 Woodbury Heights, NJ 08097  
 816-233-3747  
[abfse.org/html/committee.html](http://abfse.org/html/committee.html)

**Health Information Technology**

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)  
 200 East Randolph Street, Suite 5100  
 Chicago, IL 60601  
 312-235-3255  
[cahiim.org](http://cahiim.org)

**Legal Studies/Paralegal**

Program is approved by the American Bar Association  
 321 North Clark Street  
 Chicago, IL 60654  
 800-285-2221  
[americanbar.org/groups/paralegals/](http://americanbar.org/groups/paralegals/)

**LPN to ADN Progression**

Accreditation Commission for Education in Nursing (ACEN)  
 3390 Peachtree Road NE, Suite 1400  
 Atlanta, GA 30326  
 404-975-5000  
[acenursing.org](http://acenursing.org)

**Medical Assistant**

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
 2339 N. California Ave., #47138  
 Chicago, IL 60647  
[maerb.org](http://maerb.org)

The Medical Assistant diploma program is accredited by the Commission on Accreditation of Allied Health Education Programs <https://www.caahep.org/> upon the recommendation of the Medical Assisting Education Review Board.

**Medical Laboratory Technician**

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)  
 5600 North River Road, Suite 720  
 Rosemont, IL 60018-5119  
 773-714-8880  
[naacls.org](http://naacls.org)

**Nail Technician**

State of Wisconsin Department of Safety and Professional Services  
 4822 Madison Yards Way  
 Madison, WI 53705  
 608-266-2112  
<https://dsps.wi.gov/Pages/Professions/Manicurist/Default.aspx>

**Nutrition and Dietetic Technician**

Accreditation Council for Education in Nutrition and Dietetics (ACEND)  
 120 South Riverside Plaza, Suite 2190  
 Chicago, IL 60606-6995  
 800-877-1600, ext. 5400  
<https://www.eatrightpro.org/acend>

**Occupational Therapy Assistant**

Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA)  
 7501 Wisconsin Ave, Suite 510 E  
 Bethesda, MD 20814  
 301-652-6611  
[acoteonline.org](http://acoteonline.org)

**Paramedic Technician**

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)  
 8301 Lakeview Parkway, Suite 111-312  
 Rowlett, TX 75088  
 214-703-8445  
[coaemsp.org](http://coaemsp.org)

**Pharmacy Technician**

ASHP/ACPE Pharmacy Technician Accreditation Commission  
 4500 East-West Highway, Suite 900  
 Bethesda, MD 20814  
 866-279-0681  
<https://www.ashp.org/professional-development/technician-program-accreditation>

**Phlebotomy**

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)  
 5600 North River Road, Suite 720  
 Rosemont, IL 60018-5119  
 773-714-8880  
[naacls.org](http://naacls.org)

**Physical Therapist Assistant**

Commission on Accreditation of Physical Therapy Education (CAPTE)  
 3030 Potomac Avenue, Suite 100  
 Alexandria, VA 22305-3085  
 800-999-2782  
[capteonline.org](http://capteonline.org)

**Practical Nursing**

Accreditation Commission for Education in Nursing (ACEN)  
 3390 Peachtree Road NE, Suite 1400  
 Atlanta, GA 30326  
 404-975-5000  
[acenursing.org](http://acenursing.org)

**Radiography**

Joint Review Committee on Education in Radiologic Technology (JRCERT)  
 20 North Wacker Drive, Suite 2850  
 Chicago, IL 60606-3182  
 312-704-5300  
[jrcert.org](http://jrcert.org)

**Real Estate**

State of Wisconsin Department of Safety and Professional Services  
 4822 Madison Yards Way  
 Madison, WI 53705  
 608-266-2112  
<https://dsps.wi.gov/Pages/Professions/RESalesperson/Default.aspx>

**Refrigeration, Air Conditioning and Heating Service Technician**

HVAC Excellence  
 P.O. Box 521  
 Mt. Prospect, IL 60056  
 800-726-9696  
<https://www.escogroup.org/accreditation/default.aspx>

**Registered Nursing**

Accreditation Commission for Education in Nursing (ACEN)  
 3390 Peachtree Road NE, Suite 1400  
 Atlanta, GA 30326  
 404-975-5000  
[acenursing.org](http://acenursing.org)

**Respiratory Therapy**

Commission on Accreditation for Respiratory Care (CoARC)  
 264 Precision Boulevard  
 Telford, TN 37690  
 817-283-2835  
[coarc.com](http://coarc.com)  
 Accreditation is based on recommendation of the Commission on Accreditation for Respiratory Care.

**Surgical Technology**

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
 9355 - 113th Street N, #7709  
 Seminole, FL 33775  
 727-210-2350  
<https://arcstsa.org/>  
 Accreditation is based on recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting.

**Surveying and Mapping**

Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors  
 Department of Safety and Professional Services  
 P.O. Box 8366  
 Madison, WI 53708-8366  
 608-266-2112  
<https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>

# DIRECTORY

## President's Office

### **Cruz, Anthony**

President, B.A., Florida International University; M.P.A., Florida State University; Ed.D., Florida International University.

### **Schultz, Elizabeth**

Senior Executive Assistant to the President and MATC District Board, B.A., Carroll University; M.B.A., Thunderbird School of Global Management at Arizona State University.

## Executive Leadership Team

### **Bonds-Jones, Laquitha**

Vice President, Human Resources, B.S., Concordia University; M.S., Cardinal Stritch University.

### **Bray, Laura M.**

Vice President of College Advancement and External Communications, B.A., M.B.A., Marquette University.

### **Hamlett, Debbie**

Vice President and General Manager, Milwaukee PBS, B.A., University of South Carolina.

### **Kuether, Eva**

Chief Financial Officer, B.A., University of Wisconsin-Milwaukee; Certified Public Accountant.

### **King, Phillip**

Executive Vice President and Provost, B.S., M.S., Portland State University; Ed.D., Ferris State University.

### **Rogers, Michael**

Vice President, Student Engagement and Community Impact, B.A., Augustana College; M.S., Western Illinois University.

### **Terrell-Webb, Sherry**

General Counsel, B.S., University of Illinois Urbana-Champaign; J.D., Marquette University Law School.

### **Zinck, Paul W.**

Vice President, Administration and Operations, B.B.A., M.B.A., McKendree University.

## President's Cabinet

Includes the aforementioned and the following:

### **Cannell, Barb**

Executive Dean, Academic Learning, B.S., Western Illinois University; M.S., Northern Illinois University.

### **Isahaku, Sadique**

Vice Provost, Learning, B.S., Ahmadu Bello University, Zaria, Nigeria; B.A., M. Phil., University of Tromsø, Norway; Ph.D., Norwegian University of Science & Technology, Trondheim, Norway.

### **Rowe, David M.**

Chief Information Officer, B.S., M.I.T., Griffith University, Australia.

### **Tagliavia, Anthony J.**

Chief Marketing Officer, B.S., M.S., Northwestern University.

### **Wang, Yan**

Vice President, Enrollment and Retention, B.S., Master's Degree, Peking University; M.S., Ph.D., The Ohio State University.

## Business & Management Faculty

### **Meredith, Carl C.**

Dean, Business & Management Pathway, M.S., Marian College; M.D.V., Regent University.

### **Blechacz, Philip G.**

Accounting, B.S., Marquette University; M.S., University of Wisconsin-Milwaukee; Certified Public Accountant.

### **Brown, Judith S.**

Office/Systems Technology, Diploma, Milwaukee Area Technical College; B.B.A., University of Wisconsin-Whitewater; M.S., Cardinal Stritch University; Licensed Cosmetologist; Certified Cosmetology Instructor.

### **Burleson, Steven M.**

Marketing, B.S., M.A., University of Wisconsin-Oshkosh; M.B.A., Keller Graduate School of Management.

### **Burton, Larry G.**

Office/Systems Technology, A.A., Bryant & Stratton College; B.A., Lakeland College; M.S., Cardinal Stritch University.

### **Caselius, Nicole K.**

Business Related Health, A.A.S., B.A., Herzing University; M.H.A., University of Phoenix.

### **Curtis, Nell H.**

Accounting, B.S., University of Minnesota; M. Acc., The Ohio State University; Certified Public Accountant.

### **Davidson, Gretchen A.**

Marketing, B.A., University of Wisconsin-Madison; M.B.A., Purdue University Global.

### **Dischler, Erin R.**

Accounting, B.S., M.B.A., Edgewood College.

### **Goodwyn, Walter**

Business Administration, B.S., M.B.A., Appalachian State University.

### **Guerin, Corrinne A.**

Leadership Development, B.S., Cardinal Stritch University; M.A., Concordia University.

### **Hadjinian, Armen D.**

Small Business, B.S., M.B.A., Marquette University.

### **Jatczak, Jessica A.**

Business Administration, B.S., University of Wisconsin-Madison; M.B.A., Marquette University; Six Sigma Black Belt-Johnson Controls.

### **Javers, John R.**

Accounting, B.S., University of Nevada, Las Vegas; M.B.A., University of Wisconsin-Milwaukee.

### **Johnson, Beverly G.**

Hotel & Hospitality, A.A.S., Fashion Technical College; B.A., Ottawa University; M.S., University of Wisconsin-Stout.

### **Kapfhammer, Jo L.**

Business Administration, B.S., University of Wisconsin-Madison; M.B.A., Marquette University.

### **Kinlow-Jackson, Cheryl L.**

Office/Systems Technology, B.A., University of Wisconsin-Milwaukee; M.B.A., Ph.D., Cardinal Stritch University.

### **Kopel, Rachael K.**

Marketing, B.B.A., University of Wisconsin-Madison; M.B.A., Concordia University Wisconsin.

### **Le Blanc, Dean F.**

Supervision & Leadership Development, B.S., M.B.A., Cardinal Stritch University; Six Sigma Green Belt-Motorola University; Supply Chain Management-APICS.

### **Leazer, Naryan**

Business Administration, B.S., M.S., Cardinal Stritch University.

### **Lehnen, Emily S.**

Marketing, B.S., M.B.A., University of Wisconsin-Madison.

### **Librizzi, Natasha**

Accounting, B.B.A., University of Wisconsin-Milwaukee; M.B.A., Marquette University, Certified Public Accountant.

### **Lorino Jr., Jay P.**

Business Administration, B.S., M.B.A., University of Wisconsin-Whitewater.

### **Medcalf, Michael**

Small Business, B.A., M.A., University of Wisconsin-Whitewater.

### **Metzke, Tammy M.**

Accounting, B.B.A., M.B.A., University of Wisconsin-Milwaukee.

### **Nowak, Elaine M.**

Office/Systems Technology, B.S., Northland College; M.A., Silver Lake College of Holy Family.

### **Olson, Danica E.**

Accounting, B.S., M.S., Marquette University; Certified Public Accountant.

### **Paur, Richard P.**

Real Estate, B.S., M.S., Marquette University; Professional Engineer; Licensed Wisconsin Commercial Building Inspector; Licensed Wisconsin UDC-Construction Inspector; Licensed Wisconsin UDC-HVAC Inspector; Licensed Wisconsin Real Estate Broker; Licensed Wisconsin Home Inspector.

### **Reyes, Erika**

Office/Systems Technology, B.A., Alverno University; M.B.A., Ottawa University.

# DIRECTORY OF CREDENTIAL INFORMATION

**Linde, Rochelle A.**

Hospitality, B.A., University of Wisconsin-Milwaukee; M.B.A., Cardinal Stritch University; Certified Meeting Professional; Certified Meeting Manager.

**Scott, Talaya J.**

Accounting, B.S., Cardinal Stritch University; M.S.F.M.; Keller Graduate School of Management.

**Smalley, Carmen M.**

Hospitality, B.A., M.B.A., Concordia University Wisconsin; Certified Meeting Professional; Certified Hospitality Educator.

**Socol, Lois J.**

Human Resources Management, B.A., M.B.A., Concordia University Wisconsin.

**Spredemann, Doris**

Business Management, B.B.A., Universidad Nacional Mayor de San Marcos; M.B.A., Concordia University Wisconsin.

**Toledo, Rebecca G.**

Accounting, B.S., University of Philippines; M.B.A., San Francisco State University.

**Van Wieringen, Laurie.**

Business Analyst, A.A.S., Milwaukee Area Technical College; B.A., Lakeland College; M.S., Southern New Hampshire University; Certified Public Accountant.

**Ward Dodds, Marlena R.**

Business Administration, B.A., University of Wisconsin-Milwaukee; M.B.A., Concordia University; Ed.D., Ed.S., Liberty University.

## Community & Human Services Faculty

**Brown, Valencia**

Dean, Community & Human Services Pathway, A.A.S., Milwaukee Area Technical College; B.S., Upper Iowa University; M.S., Concordia University; Ph.D., Cardinal Stritch University.

**Adams, Toshiba L.**

Child Development, B.S., M.S., Ph.D., University of Wisconsin-Milwaukee.

**Ardis, Yvette N.**

Childhood Development, B.S., University of Wisconsin-Whitewater; M.S., University of Wisconsin-Milwaukee.

**Bates, Kathleen S.**

Environmental Health, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Eau Claire; Certified Hazardous Materials Manager; Registered Sanitarian.

**Bodden, Jacob**

Emergency Medical Services, A.A.S., Milwaukee Area Technical College; Licensed Paramedic; EMS Instructor I.

**Brady, Carol**

Paralegal, B.A., University of Wisconsin-Eau Claire; J.D., Southern University & A&M College.

**Brooks, Kelsey**

Emergency Medical Services, Diploma, EMS, Waukesha Community Technical College; B.S., University of Wisconsin-La Crosse; ACLS; NREMT; EMS Instructor II.

**Braun, Douglas A.**

Police Technology, B.A., Marquette University; M.A., Concordia University.

**Buck, Latrice D.**

Human Services, B.S., Alabama State University; M.S.W., University of Wisconsin-Milwaukee; D.S.W., Capella University.

**Cahoon, Alyssa M.**

Emergency Medical Services-Paramedic, Technical Diploma, Gateway Technical College; A.A.S., Fox Valley Technical College; A.S.N., Excelsior College; B.S., M.P.H., Columbia Southern University; Ed.D., Concordia University; Registered Nurse; NRP-Paramedic. EMS Instructor II.

**Cary, Megan**

Child Development, B.A., St. Norbert College; M.S., Erikson Institute.

**Chavez, Sandra A.**

Human Services, B.A., Wayne State University; M.S.W., University of Wisconsin-Milwaukee.

**Citchen, Darrell L.**

Human Services, B.A., University of Wisconsin-Whitewater; M.S., University of Wisconsin-Milwaukee.

**Cole Jr., Richard A.**

Police Technology, B.S., University of Wisconsin-Milwaukee; J.D., Marquette University.

**Dean, Christopher**

Emergency Medical Services-Paramedic, Technical Diploma, A.A.S., A.S.N., Lakeshore Technical College; B.A., University of Wisconsin-Milwaukee; M.S., Western Governors University; Registered Nurse, NREMT-Paramedic, EMS Instructor II.

**Echeveste, Celina M.**

Child Development, B.A., Alverno College; M.S., University of Wisconsin-Milwaukee.

**Espinoza, David A.**

Child Development, B.S., M.S., University of Wisconsin-Milwaukee.

**Gonzalez de Carrillo, Maria**

Child Development, B.S., Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico; M.S., University of Wisconsin-Milwaukee.

**Groszczyk, Allen**

Police Technology, A.A.S., Milwaukee Area Technical College; B.S., Cardinal Stritch University.

**Heard, Nathaniel Ellis**

Emergency Medical Services, B.A., University of Wisconsin-Oshkosh; EMT-Paramedic; EMS Instructor II.

**Her, Choua Y.**

Child Development, A.A., Milwaukee Area Technical College; B.S., University of Wisconsin-Milwaukee; M.S., Concordia University.

**Irzyk, Andrew J.**

Emergency Medical Services, A.S.N., Owens Community College; Registered Nurse; EMT-Paramedic; EMS Instructor II.

**Jackson, Megan A.**

Barbering/Cosmetology, B.A., University of Wisconsin-Milwaukee; M.B.A., Lakeland University; Licensed Cosmetologist; Certified Cosmetology Instructor.

**Jackson, Nicole L.**

Human Services, B.A., Alverno College; M.S., Mount Mary College.

**Janus, Ryan**

Emergency Medical Services, Diploma, Gateway Technical College; B.S., University of Wisconsin-Milwaukee; M.S., King's College London; EMT-Paramedic; EMS Instructor II; Certified Healthcare Simulation Educator (CHSE).

**Jasper Jr., Julian E.**

Funeral Service, A.A.S., Milwaukee Area Technical College; B.A., Cardinal Stritch University; M.Ed., Concordia University; Licensed Funeral Director.

**Jordan, Shanel M.**

Barbering/Cosmetology, Technical Diploma, A.A.S., Milwaukee Area Technical College.

**Klaybor, Randal P.**

Fire Technology, A.A.S., Milwaukee Area Technical College; B.S., Mount Senario College; Fire and Emergency Services Instructor II.

**Klis, Justin A.**

Emergency Medical Services, A.A.S., Milwaukee Area Technical College; B.S., Columbia Southern University; M.P.A., Columbia Southern University; NREMT-Paramedic; EMS Instructor II; National Certified EMS Instructor (NCEE).

**Koerner, Erin T.**

Emergency Medical Services, B.S., University of Wisconsin-Stevens Point; M.S., Columbia Southern University; NREMT-Paramedic; EMS Instructor II.

**Kornblum, Lori S.**

Paralegal, B.A., Yale College; J.D., University of California, Berkeley.

**Monroe, Kelly J.**

Funeral Service, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-La Crosse; M.Ed., Carroll University; Licensed Funeral Director.

**Novak, Andrew**

Emergency Medical Services, Diploma, Fox Valley Technical College; A.A.S., Rasmussen College; B.S., Columbia Southern University; NRP; EMS Instructor II.



# DIRECTORY

**Paidier, Guy**

Emergency Medical Services, Diploma, EMT, Lakeshore Technical College; A.A.S., Milwaukee Area Technical College; A.A.S., Fox Valley Technical College; B.S., Upper Iowa University; EMT Paramedic.

**Perry, Ian**

Emergency Medical Services, Technical Diploma, Gateway Technical College; A.A.S., Columbia Southern University; EMT-Paramedic.

**Plevak, Thomas A.**

Fire Technology, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Milwaukee; M.S., University of Wisconsin-Stout.

**Prange, Constance**

Police Technology, B.A., Concordia University; J.D., Marquette University.

**Purnell, Tamara**

Barbering/Cosmetology, Licensed Aesthetician.

**Raffenberg, Matthew B.**

Emergency Medical Services, Technical Diploma, Madison College; B.A., Miami University; Critical Care Paramedic.

**Reed, Ashante S.**

Barbering/Cosmetology, Licensed Manicurist; Certified Manicuring Instructor.

**Reilly, Rupert A.**

Police Technology, B.S., John Jay College of Criminal Justice.

**Reyes, Eugene J.**

Police Technology, B.A., University of Wisconsin-Madison.

**Sanders, Diane P.**

Barbering/Cosmetology, A.A.S., B.S., M.S.M., Cardinal Stritch University; Licensed Cosmetologist; Certified Cosmetology Instructor.

**Schauf, Gabriel M.**

Funeral Service, B.S., University of Minnesota; M.B.A., University of Phoenix; Licensed Funeral Director.

**Schrader, Matthew R.**

Emergency Medical Services, A.A.S., Milwaukee Area Technical College; B.A., University of Wisconsin-Milwaukee; EMT-Paramedic.

**Schwark, Jeffrey A.**

Police Technology, A.A.S., Milwaukee Area Technical College.

**Stubenrauch, Julie A.**

Barbering/Cosmetology, A.A.S., Milwaukee Area Technical College; Licensed Cosmetologist; Certified Cosmetology Instructor.

**Sujecki, Michael J.**

Paralegal, B.A., Marquette University; J.D., John Marshall Law School.

**Tandon, Sucharita**

Environmental Health, B.S., M.Sc., Chhatrapati Shahu Ji Maharaj University; Ph.D., Bangalore University.

**Toor, Gurkirat**

Emergency Medical Services, A.A.S., American River College; B.S., Mercy College of Health Sciences; Licensed Paramedic; Certified EMS Instructor I.

**Tripi, Linda M.**

Interpreter Technician, A.A.S., Milwaukee Area Technical College; B.S., M.S., University of Wisconsin-Milwaukee.

**Walker, Kara K.**

Barber/Cosmetology, Cardinal Stritch University; M.A., Alverno College; Licensed Cosmetologist; Certified Cosmetology Instructor.

**Ward, Kanika J.**

Barber/Cosmetology, B.S., Tuskegee University; M.B.A., University of Wisconsin-Milwaukee; Licensed Aesthetician; Certified Aesthetics Instructor.

**Warner, Karen**

Emergency Medical Services, A.A.S., Lakeshore Technical College; B.S., University of Wisconsin-Stevens Point; B.S., Rasmussen University; M.S., Milwaukee School of Engineering; Registered Nurse, NREMT-Paramedic; EMS Instructor II.

**Wellington, Domaz O.**

Human Services, B.S., University of Wisconsin-Milwaukee; M.A., Northern Illinois University.

**Wowerat, Friedericke**

Barber/Cosmetology, Licensed Cosmetologist; Certified Cosmetology Instructor.

**Zarate, Victor X.**

Barber/Cosmetology, Apprenticeship, Milwaukee Area Technical College; Licensed Barber; Certified Cosmetology Instructor.

**Zellmann, Kurt W.**

Fire Technology, A.A.S., Milwaukee Area Technical College; A.A.S., Milwaukee School of Engineering; B.S., Columbia Southern University; Fire and Emergency Services Instructor I.

## Creative Arts, Design & Media Faculty

**Sitte, Mike**

Dean, Creative Arts, Design & Media Pathway, A.A.S., Northeast Wisconsin Technical College; B.S., University of Phoenix; M.A., Lakeland University; Ph.D., Cardinal Stritch University.

**Alston, Jason**

Culinary Arts, A.A.S., Milwaukee Area Technical College; B.S. Cardinal Stritch University; ServeSafe Certified.

**Anderson, Michael J.**

Visual Communications, A.A.S., Milwaukee Area Technical College; B.S., Computer Information Technology.

**Baumann, Holly**

Baking and Pastry Arts, A.A.S., Milwaukee Area Technical College; ServeSafe Certified.

**Berett, Christopher**

Animation, B.F.A., University of Wisconsin-Eau Claire.

**Bergner, Mark S.**

Television and Video Production, B.A., University of Wisconsin-Madison.

**Brown, Daniel**

Television and Video Production, B.A., Indiana University Bloomington.

**Brzinski, Christopher M.**

Graphic Design, B.S., M.S., University of Wisconsin-Stout.

**Carrier, Paul**

Culinary Arts, Technical Diploma, 916 Vocational Technical Institute; A.A.S., B.S., University of Minnesota Crookston; M.S., University of Wisconsin-Stout; ACF Certified Executive Chef; Certified Food and Beverage Executive.

**Clark, Michael D.**

Culinary Management, A.A.S., Waukesha County Technical College; B.A., St. Norbert College.

**Decker, Timothy W.**

Animation, B.F.A., California Institute of Arts.

**DenDooven, Kathryn L.**

Web and Digital Media Design, B.F.A., University of Wisconsin-Whitewater.

**Dubinsky, Darin J.**

Photography, A.A.S., Milwaukee Area Technical College.

**Evans, Michelle M.**

Baking and Pastry Arts, A.O.S., New England Culinary Institute.

**Fogle, Kurt R.**

Baking and Pastry Arts, A.A.S., Milwaukee Area Technical College.

**Garza, Antonio**

Web and Digital Media Design, A.A.S., Milwaukee Area Technical College; B.F.A., University of Wisconsin-Milwaukee; M.S., Capella University.

**Genrich, Adam C.**

Culinary Arts, A.A.S., Milwaukee Area Technical College; B.A., Valparaiso University.

**Harmsen Jr., Emil A.**

Visual Communications, A.A.S., Milwaukee Area Technical College; B.S., Cardinal Stritch University.

**Highway, Robbi A.**

Music, B.M., University of Wisconsin-Oshkosh; M.M., University of Wisconsin-Madison.

**Hill, Lauren**

Television and Video Production, B.A., Indiana University Bloomington.

**Horne, Aaron V.**

Audio Production, B.M.E., Arkansas Tech University; M.M., Southern Utah University.

## DIRECTORY OF CREDENTIAL INFORMATION

### **Jambura, Andrew**

Audio Production, B.A., Saint Mary's University of Minnesota.

### **Kaestner, Jack R.**

Culinary Arts, B.S., University of Wisconsin-Madison; A.O.S., Culinary Institute of America.

### **King-Smith, Theodore R.**

Audio Production, B.M.E., University of Hartford; M.A., Washington State University; D.M.A., University of Missouri-Kansas City.

### **Lagrange, Susan M.**

Visual Communications, B.F.A., University of Wisconsin-Whitewater; M.S.E., Carroll University.

### **Meersman, Jonathan**

Web and Digital Media Design, B.A., University of Cincinnati; M.B.A., University of Phoenix.

### **Mennenoh, Brian P.**

Animation, B.F.A., University of Wisconsin-Eau Claire.

### **Peplin, Stephen W.**

Music, A.A.S., Milwaukee Area Technical College; B.M., Berklee College of Music.

### **Philaja, Molly A.**

Interior Design, B.S., University of Wisconsin-Stevens Point.

### **Pulz, Kevin F.**

Television and Video Production, B.A., Marquette University; M.A., William Paterson College of New Jersey.

### **Quinn, Brian**

Culinary Arts, A.A.S., Johnson & Wales University; B.A., University of Wisconsin-Madison.

### **Schneider, Andrew J.**

Baking and Pastry Arts, A.A.S., Milwaukee Area Technical College; Apprenticeship.

### **Skaja, Joel C.**

Graphic Design, B.F.A., Milwaukee Institute of Art & Design; M.F.A., Savannah College of Art and Design.

### **Smallish, Craig M.**

Graphic Design, Diploma, Milwaukee Institute of Art and Design; M.A., Syracuse University.

### **Smith, Matthew B.**

Audio Production, A.S., Full Sail University.

### **Sun, Tairan**

Graphic Design, A.S., Tianjin University of Commerce, China; MDes., Illinois Institute of Technology.

### **Swanson, Seth D.**

Computer Simulation and Gaming.

### **Wallace, Elizabeth**

Music, B.S.E., Martin Luther College.

### **Wernette, Gary R.**

Television and Video Production, B.S., University of Wisconsin-La Crosse.

## Employer & Community Education

### **Gomez, Josephine**

Dean, Community Education and Strategic Engagement, B.S., Syracuse University; M.E., Ph.D., University of Illinois Chicago.

### **Alvarado, Nora V.**

English-Bilingual, B.S., M.A., Ph.D., University of Wisconsin-Milwaukee.

### **Anthony, Steven Andre**

History, B.A., University of Arkansas at Little Rock; M.B.A., Cardinal Stritch University; Ph.D., University of Wisconsin-Milwaukee.

### **Beznik Frieseke, Anastasia C.**

Mathematics, B.S., University of Wisconsin-Milwaukee; M.S., Capella University.

### **Blackmore, Dawn T.**

English as a Second Language, B.A., M.A., University of Minnesota, Twin Cities.

### **Bodden, Jacob**

English as a Second Language, B.S., University of Wisconsin-Milwaukee; M.S., Capella University.

### **Boulaleh, Fouad**

Mathematics, B.S., Milwaukee School of Engineering; M.S., Cardinal Stritch University.

### **Bourkadi, Samira Z.**

English-Bilingual, B.A., University of Tromsø, Norway; M.Ed., American College of Education.

### **Bromwell, Mary E.**

English as a Second Language, B.A., Carroll University; M.A., University of Delaware.

### **Browning, Elizabeth**

English as a Second Language, B.A., University of Wisconsin-Eau Claire; M.A.T., School for International Training.

### **Burgos Rivera, Rafael**

GED/HSED Communication, B.A., Lakeland College; M.A., Edgewood College.

### **Burns, Cary C.**

English, B.A., Clarke College; J.D., Drake University.

### **Burton, Larry G.**

Office/Systems Technology, A.A., Bryant & Stratton Business College; B.A., Lakeland College; M.S., Cardinal Stritch University.

### **Carter, Gwendolyn E.**

Mathematics, A.A.S., Milwaukee Area Technical College; B.A., Concordia University Wisconsin; M.B.A., Cardinal Stritch University.

### **Chevalier, Courtney G.**

Mathematics, B.S., Syracuse University; M.A.Ed., Lehman University.

### **Cornelius, Derick**

Communication, B.A., Concordia University Wisconsin; M.A., Alverno College.

### **Doll, Giovanna**

Mathematics, B.A., Lakeland College.

### **Ellsworth, Gail K.**

English as a Second Language, B.S., University of Wisconsin-Eau Claire; M.A., Hamline University.

### **Estes-Earl, Joann**

Reading, B.S., M.A., University of Phoenix.

### **Everett, Mia L.**

Science, A.A.S., Milwaukee Area Technical College; B.S.N., Marquette University; M.S.N., University of Wisconsin-Milwaukee.

### **Fabian-Albert, Lisa C.**

English as a Second Language, B.S., University of Wisconsin-Oshkosh; M.S.E., University of Wisconsin-Whitewater.

### **Gall, Julie A.**

English, B.A., M.A., Cardinal Stritch University.

### **Ginster, Tammy M.**

English as a Second Language, B.A., M.A., University of Wisconsin-Milwaukee.

### **Gottwald, Heidi L.**

English as a Second Language, B.S.E., University of Wisconsin-Whitewater; M.S., Edgewood College.

### **Grobschmidt, Tamara A.**

English as a Second Language, B.A., University of Wisconsin-Madison.

### **Hansen Cardona, Laurie E.**

English as a Second Language, B.A., Marquette University; M.S., University of Wisconsin-Milwaukee.

### **Hein-Paredes, Carrie A.**

English as a Second Language, B.A., University of Wisconsin-Green Bay; M.S., University of Wisconsin-Milwaukee.

### **Helland, Erin Lynn**

English as a Second Language, B.A., M.A., Hamline University.

### **Hines, Elaine**

Office/Systems Technology, A.A.S., Milwaukee Area Technical College; B.A., Alverno College; M.B.A., Concordia University.

### **Hofmann-Larsen, Maren J.**

English as a Second Language, B.A., University of Wisconsin-Madison; M.A., University of Wisconsin-Milwaukee.

### **Jefferson, Diane**

English, B.S., University of Wisconsin-Milwaukee; M.A., Ph.D., Cardinal Stritch University.

### **Jefferson-Ganya, Mary J.**

Mathematics, A.A.S., Milwaukee Area Technical College; B.S., Marquette University; B.S.N., University of Wisconsin-Milwaukee; M.Ed., American College of Education.

### **Joachim, Thomas R.**

Science, B.S., University of Wisconsin-Whitewater; M.S., Concordia University.

### **Jolly, Jacqueline**

Mathematics, B.S., University of Wisconsin-Milwaukee; M.E., National Louis University; M.A., Mount Mary College.

# DIRECTORY

**Karnowski, Richard P.**

Reading, B.S., University of Wisconsin-Milwaukee; M.S., Concordia University Wisconsin.

**Kaye, Catherine J.**

English as a Second Language, B.A., University of Wisconsin-Madison; M.A., University of Illinois Chicago.

**Khang, Pao**

Mathematics, B.A., M.S., Cardinal Stritch University.

**Kis, Stephen C.**

English as a Second Language, B.A., University of Wisconsin-Parkside; M.A., University of Minnesota.

**Krull, Michael J.**

English as a Second Language, B.A., University of Wisconsin-Milwaukee; M.Ed., Carroll University.

**Landon, Darice M.**

English, B.A., Drake University.

**Lavin, Charles O.**

English as a Second Language, B.A., B.S., Florida State University; M.A., University of Wisconsin-River Falls.

**Lehmann, Joy A.**

English as a Second Language, B.A., New York University; M.A., The New School.

**Mulvena, Kelly A.**

English, B.A., Carthage College; M.A., Mount Mary College.

**Nason, Carolyn V.**

English as a Second Language, B.S., University of Wisconsin-La Crosse; M.A., University of Wisconsin-Milwaukee.

**Omari, Bara S.**

English as a Second Language, B.A., M.A., University of Wisconsin-Milwaukee.

**Peppers, Rosalind L.**

Science, A.A.S., Milwaukee Area Technical College; B.A., Cardinal Stritch University; M.S., University of Saint Joseph.

**Petterson, Ines M.**

Mathematics, Bilingual, B.B.A., Universidad Santiago de Cali, Colombia; M.S., Cardinal Stritch University.

**Reed, Jacquelyn N.**

Mathematics, B.A., Alverno College; M.S., Capella University.

**Richardson, Tatyana N.**

English, B.A., Marquette University; M.Ed., University of Oklahoma.

**Richie, Jean M.**

English as a Second Language, B.A., Central College, M.A., University of Illinois Urbana-Champaign.

**Schneck, Katherine C.**

English as a Second Language, B.A., M.A., University of Wisconsin-Milwaukee.

**Sykes, Mernathan M.**

English, B.S., Chicago State University; M.S., University of Wisconsin-Milwaukee; D.E., Gwynedd Mercy University.

**Tateoka, Thomas J.**

Mathematics, A.A.S, Ricks College; A.A.S., Milwaukee Area Technical College; B.A., B.S., Utah State University.

**Thielen, Holly A.**

Mathematics, B.S., University of Wisconsin-Milwaukee; M.S., University of St. Francis.

**Torres, Veronica**

English as a Second Language, B.A., Marquette University; M.A., Grand Canyon University.

**Vanderhoof, Maureen E.**

English as a Second Language, B.A., University of Wisconsin-Milwaukee; M.Ed., University of Maryland.

**Weisenburger, Kristi M.**

English as a Second Language, B.A., St. Norbert College; M.A., University of Wisconsin-Milwaukee.

**Wierschke, Jolene E.**

English as a Second Language, B.A., Wartburg College; M.A., University of Wisconsin-Madison.

**Wolters, Estelle**

English as a Second Language, B.S., University of Wisconsin-Madison; M.S., University of Wisconsin-Madison.

## General Education Faculty

**Isahaku, Sadique**

Dean, General Education Pathway, B.S., Ahmadu Bello University, Zaria, Nigeria; B.A., M. Phil., University of Tromsø, Norway; Ph.D., Norwegian University of Science & Technology, Trondheim, Norway.

**Allen, Carolyn A.**

Reading, B.S., Miles College; M.E., National Louis University.

**Allen, John N.**

English, B.A., St. Norbert College; M.A., Marquette University; Ph.D., University of Wisconsin-Milwaukee.

**Baltus-Quist, Linda M.**

English, B.A., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Oshkosh.

**Basabe, Angel R.**

Social Science, B.S., Carroll College; M.S.W., University of Wisconsin-Milwaukee; M.S., Cardinal Stritch University.

**Berg, Patricia J.**

Mathematics, B.A., Macalester College; M.S., Montana State University.

**Berns, Andrew R.**

Social Science, B.S., M.S., M.B.A., University of Wisconsin-Madison; Ph.D., University of Wisconsin-Milwaukee.

**Boone, Tamika K.**

Mathematics, B.S., M.S., University of Wisconsin-Milwaukee; Ph.D., Cardinal Stritch University.

**Boeve, Marianne F.**

Social Science, B.A., M.A., Marquette University; B.A., University of Iowa; M.A., University of Wisconsin-Milwaukee.

**Brown, Nakeesha N.**

Speech, B.A., M.S., University of Wisconsin-Whitewater; M.Div., Central Baptist Theological Seminary.

**Calvin, Willette D.**

English, B.A., Carroll College; M.A., University of Arizona.

**Clark, Traci L.**

English, B.A., Marquette University; M.A., University of Wisconsin-Milwaukee.

**Clohessy, Ronald J.**

English, A.A.S, B.A., College of Staten Island, City University of New York; M.A., Ph.D., University of Wisconsin-Milwaukee.

**Connelly, Mark**

English, B.A., Carroll College; M.A., Ph.D., University of Wisconsin-Milwaukee.

**Cross, Vida**

Communication Skills, B.A., Knox College; M.A., Iowa State University; M.F.A., School of Art Institute of Chicago.

**De Silva, Rohan T.**

Social Science, B.S.E., Concordia Teachers College; B.A., M.A., University of Illinois Chicago; M.A., Ph.D., Northwestern University.

**Doll, Giovanna**

Mathematics, B.A., Lakeland College.

**Ellis-Gordon, Angela N.**

Reading, A.A.S., Milwaukee Area Technical College; B.S., M.S., University of Wisconsin-Milwaukee.

**Erickson, Kate L.**

History, B.A., M.A., University of Wisconsin-Milwaukee.

**Gandy-Johnkin, Shanda L.**

English, B.S., Alabama State University; M.S.E., National Louis University.

**Gebhard, David D.**

Mathematics, B.S., University of Dayton; Ph.D., Michigan State University.

**Geddes, Lori A.**

Economics, B.S., University of Wisconsin-Whitewater; M.A., Ph.D., University of Wisconsin-Milwaukee.

**Gensrick, Julie M.**

Mathematics, B.S., University of Wisconsin-Oshkosh; M.A., University of Wisconsin-Madison; M.A.T., University of Idaho.

**Goodrich, Suzanne M.**

Social Science, B.A., M.Ed., Marquette University.

## DIRECTORY OF CREDENTIAL INFORMATION

**Hagedorn, Eric A.**

Mathematics, B.S., Pennsylvania State University; M.S., Ph.D., University of Wisconsin-Milwaukee.

**Hartley Omholt, Melissa**

Art, B.A., M.A., University of Wisconsin-Milwaukee.

**Holloway, Chuckson D.**

Social Science, B.A., University of Wisconsin-Milwaukee; M.A., University of Chicago; Ph.D., University of Wisconsin-Milwaukee.

**Hugdahl, Lisa D.**

Mathematics, B.A., M.S., University of Wisconsin-Milwaukee.

**Hughes, Nina**

Social Science, B.A., Alverno College; M.S., Psy.D., Wisconsin School of Professional Psychology.

**Hunnicutt, J. C.**

Social Science, B.A., B.A., Arizona State University; M.Ed., M.A., Northern Arizona University.

**Imperiale, Joseph S.**

English, A.A., University of Wisconsin Colleges-Waukesha; B.S., University of Wisconsin-Oshkosh; M.A., M.F.A., Chapman University.

**Kopacz Moldenhauer, Koa C.**

Speech, B.A., Cardinal Stritch University; M.A., M.S., University of Wisconsin-Milwaukee.

**Krause, Kim**

Physical Education, B.S., University of Wisconsin-Eau Claire; M.S., University of Wisconsin-Lacrosse.

**Lipsey-Brown, Talonda M.**

Teacher Education, B.S., Marquette University; M.S., Ph.D., University of Wisconsin-Milwaukee.

**Magner, Clement L.**

Social Science, B.S., Loras College; M.S., University of Wisconsin-Milwaukee; Ed.D., Nova University.

**Marth, Becky A.**

Social Science, B.A., M.A., University of Wisconsin-Milwaukee.

**Martinez, Amarilis**

English, B.A., Marquette University; M.A., Mount Mary College.

**Masri, Asma H.**

Social Science, B.A., University of Jordan, Jordan; M.S., Ph.D., University of Wisconsin-Milwaukee.

**McKinney, MarQulyn M.**

English, B.S., Cardinal Stritch University; M.A., University of Phoenix; M.A., Northern Arizona University.

**Michels, David P.**

Foreign Language-Spanish, B.A., M.A., University of Wisconsin-Milwaukee.

**Mirhoseini, Michelle D.**

Social Science, A.A.S., Milwaukee Area Technical College; B.A., Mount Mary College; M.S., Psy.D., Wisconsin School of Professional Psychology.

**Muirhead, Jacqueline**

Foreign Language-Spanish, B.A., University of Wisconsin-Eau Claire; M.S., University of Wisconsin-Milwaukee.

**Muirhead, Pablo B.**

Foreign Language-Spanish, B.A., University of Wisconsin-Eau Claire; M.S., Ph.D., University of Wisconsin-Milwaukee.

**Nchinda, Zacharia N.**

History, B.A., Université de Yaounde, Cameroon; M.A., Ph.D., University of Wisconsin-Milwaukee.

**Nusser, Susan**

English, B.A., Boston University; M.F.A., Emerson College.

**O'Brien, B Marco**

Social Science, B.A., M.S., University of Wisconsin-Superior; Ph.D., Marquette University.

**Omari, Samih M.**

Mathematics, B.S., B.A., M.S., University of Wisconsin-Milwaukee; M.S., Milwaukee School of Engineering.

**OmniEssence, Kimberly T.**

Speech, A.A., Copper Mountain College; B.S., Regent University; M.A., Marist College.

**Odracic, Liana**

English, B.A., Notre Dame University; M.A., Ph.D., University of Wisconsin-Milwaukee.

**Pappenheim, Sophie J.**

English, B.A., University of Minnesota-Twin Cities; M.A., University of California Santa Cruz.

**Patterson-Iyasele, Alkatrine**

Mathematics, A.A.S.; B.S., Milwaukee School of Engineering; M.S., Alabama State University.

**Pileggi, Robert J.**

Mathematics, B.S., M.S., University of Wisconsin-Whitewater; M.S., Marquette University.

**Reeves-Hill, Meredith K.**

Reading, B.A., University of Wisconsin-Milwaukee; M.A., M.S., M.A., Cardinal Stritch University; Ph.D., Northcentral University.

**Robinson, Jacqueline**

Social Science, B.A., Florida State University; M.L.S., M.S., Ph.D., University of Wisconsin-Milwaukee.

**Rubenvkov, Marina V.**

Social Science, Diploma, Southern Institute of Management-Russia; M.A., Ph.D., University of Wisconsin-Milwaukee.

**Ruszkiewicz, David J.**

Mathematics, B.S., M.S., University of Wisconsin-Milwaukee.

**Safina, Salvatore N.**

English, B.A., M.A., University of Wisconsin-Milwaukee.

**Salm, Andrew J.**

Physical Education, B.A., Millikin University; M.A., Northeast Missouri State University.

**Scott, Charysse N.**

Mathematics, B.A., City University of New York; M.A., City College of New York.

**Sieger, Katherine**

Social Science, B.A., Mount Mary University; M.A., University of Cincinnati; Ph.D., Syracuse University.

**Sosa, Luz**

Economics, B.A., M.S., Marquette University.

**Stern, Elizabeth M.**

Social Science, B.S., Bradley University; M.S., Capella University.

**Stiemke, Bonnie**

Speech, B.A., M.A., University of Wisconsin-Milwaukee.

**Sweeney, Sarah R.**

Physical Education, B.S., University of Wisconsin-Milwaukee; M.S., Cardinal Stritch University.

**Swope-Farr, Telashay**

Mathematics, B.S., Rust College; M.S., Ph.D., University of Wisconsin-Milwaukee.

**Tamanji, Asenju C.**

Social Science, B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Milwaukee; Ph.D., Loyola University Chicago.

**Thapa, Mohan**

Mathematics, A.S., Garden City Community College; B.S., Goshen College; Ph.D., Northern Illinois University.

**Tipton, Marica S.**

Social Science, B.A., Marquette University; M.S., Ph.D., University of Wisconsin-Madison.

**Townsend, Daana D.**

Social Science, B.A., M.S., University of Wisconsin-Milwaukee.

**Varley, Anna H.**

English, B.A., University of Michigan; M.A., University of New Hampshire; M.A., Ph.D., University of Arizona.

**Vasquez, Maria C.**

Mathematics, B.S., Marquette University; M.Ed., American College of Education.

**Vollman, Thomas J.**

English, B.A., Marquette University; M.L.S., Ph.D., University of Wisconsin-Milwaukee.

**Wiedmann, Lorna R.**

English, B.A., University of Wisconsin-Whitewater; M.A., Ph.D., University of Wisconsin-Madison.



# DIRECTORY

**Xue, Yong**

Physics, B.A., Sichuan University; M.S., Ph.D., University of Illinois Chicago.

**Zellmer, Jill M.**

English, B.A., University of Wisconsin-Madison; M.A., Ph.D., University of Wisconsin-Milwaukee.

## Healthcare Faculty

**Gass, Eric T.**

Dean, Healthcare Pathway, B.S., University of Wisconsin-Green Bay; M.S., Purdue University; Ph.D., University of Wisconsin-Milwaukee.

**Alva, Lynne**

Dental Hygiene, A.A.S., Waukesha County Technical College; B.S., University of Minnesota, Mankato; M.S., University of Wisconsin-Milwaukee; Registered Dental Hygienist.

**Andersen, Heather C.**

Nursing, B.S.N., Milwaukee School of Engineering; M.S.N., Herzing University; Ed.D., Ed.L., Alverno College; Registered Nurse.

**Anderson, Debra A.**

Nursing, A.D.N., Moraine Park Technical College; B.S., Marian University; M.S., Concordia University; Registered Nurse.

**Anderson, Rebecca**

Nursing, B.S.N., Marian University; M.S.N., University of Phoenix; Registered Nurse.

**Anglin, Ashanti**

Nursing Assistant, A.S, B.S., Cardinal Stritch University; M.S.N., Capella University; Registered Nurse.

**Badani, Karim M.**

Surgical Technologist, A.A.S., Milwaukee Area Technical College; B.A., University of Wisconsin-Milwaukee; B.S.N., University of Wisconsin-Oshkosh; Certified Surgical Technologist; Registered Nurse.

**Balestreri, Brittany**

Nursing, B.S, The College of Saint Scholastica; M.S., Cardinal Stritch University; Registered Nurse.

**Balistreri, Patricia L.**

Nursing, Diploma, A.D.N., Western Wisconsin Technical College; M.S.N., Master's Certificate, Walden University; Registered Nurse.

**Baman, Smiya**

Nursing Nursing Diploma, Vanier College; B.S.N., University of Ottawa; M.Sc., Queen's University; Registered Nurse.

**Bazan, Jason**

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.S., Cardinal Stritch University; Certified Respiratory Therapist; Registered Respiratory Therapist.

**Beck, Darlene C.**

Nursing, Diploma, A.A.S, Milwaukee Area Technical College; B.S.N., M.S.N., Concordia University Wisconsin; D.N.P., University of Alabama; Registered Nurse; Licensed Advanced Practice Nurse Prescriber; Adult Gerontology Primary Care Nurse Practitioner Board Certified.

**Booth, Yolanda**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., Concordia University; M.S.N., Chamberlain University; Registered Nurse.

**Bonham, Christina**

Diagnostic Medical Sonography, A.A.S., William Rainey Harper College; Registered Diagnostic Medical Sonographer (AB, OB/GYN); Registered Vascular Technologist (VT).

**Brachmann, Elizabeth**

Nursing, B.S.N., M.S.N., Marian University; Registered Nurse; ANCC Cardiac-Vascular Nursing RN-BC.

**Broadwell, Shayne**

Enhanced Yoga Instructor, A.A.S., Bryant & Stratton; B.A., University of Wisconsin-Madison; Yoga Alliance E-RYT 500.

**Broetzmann, Amy**

Surgical Technologist, A.A.S., Waukesha County Technical College; B.S., Wisconsin Lutheran College; Certified Surgical Technologist.

**Brower, Diane S.**

Radiologic Technology, B.S., University of St. Francis; M.Ed., Concordia University; Licensed Radiographer; Registered Radiologic Technologist.

**Caballero, Michael R.**

Nursing Assistant, B.S.N., Cebu Doctors' University; Registered Nurse.

**Caballero, Noel L.**

Nursing, B.S.N., Cebu City Medical Center School of Nursing; M.S.N., Cebu Normal University; Registered Nurse; Certified Nurse Educator.

**Gain, Angeline**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Concordia University; Registered Nurse.

**Kohl, Roberta L.**

Dental Hygiene, A.A.S., Milwaukee Area Technical College; B.A., Concordia University; Registered Dental Hygienist.

**Christman, Michael E.**

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Milwaukee; Certified Respiratory Therapist; Registered Respiratory Therapist.

**Church, Bradley L.**

Clinical Laboratory Technician, A.A.S., Western Technical College; B.S., University of Wisconsin-Milwaukee; ASCP Medical Laboratory Scientist.

**Cooper, Shayna Lynn**

Nursing, A.A.S., Madison Area Technical College; B.A., Coe College; M.S., Capella University.

**Cordova, Norma K.**

Dental Assisting, Surgeon Dentist, Endodontic Specialist, Universidad de Guadalajara; Certified Dental Assistant; Registered Dental Hygienist.

**Crowe, Wendy S.**

Health Information Technology, A.A.S., Western Wisconsin Technical College; B.S., University of Wisconsin-Stout; Registered Health Information Administrator.

**Del Valle, Maria**

Nursing Assistant, A.A.S., Milwaukee Area Technical College; B.S.N., Marian University; M.E., National Louis University; Registered Nurse.

**DeNornie, Melissa**

Community Health and Nutrition, B.A., University of Wisconsin-Madison; M.S., Ph.D., University of Wisconsin-Milwaukee.

**Drumel, Lisa C.**

Dental Hygiene, B.S., Marquette University; Registered Dental Hygienist.

**Ebben, Laura A.**

Health, B.S., University of Wisconsin-Milwaukee; M.A., Cardinal Stritch University; Registered Nurse.

**Echols, Alena L.**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., University of Wisconsin-Milwaukee; M.S.N., University of Phoenix; Registered Nurse.

**Edmonds, Bryan Q.**

Medical Assistant, B.A., Ottawa University; M.B.A., Cardinal Stritch University; Registered Medical Assistant.

**Emmerich, Jason**

Radiologic Technology, B.B.A., University of Wisconsin-Milwaukee; Licensed Radiographer; Registered Radiologic Technologist.

**Estrada, Fabiola**

Medical Assistant, A.S., Bryant & Stratton College; B.A., Mount Mary University; Certified Medical Assistant.

**Etes, Amanda J.**

Cardiovascular Technology, A.A.S., Spokane Community College; B.S., Washington State University; Registered Advanced Cardiac Sonographer.

**Flaherty, Patrick**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Grand Canyon University; Registered Nurse.

**Fraser, Angela**

Radiologic Technology, A.A.S., Milwaukee Area Technical College; B.S., Patten University; M.H.L., Western Governors University; Licensed Radiographer; Registered Radiologic Technologist.

**Garcia-Borst, Misty**

Nursing, B.S.N., M.S.N. Chamberlain University; Registered Nurse.

**Garcia Sanchez, Rebecca A.**

Healthcare Services Management, B.A., University of Wisconsin-Milwaukee; M.B.A., Concordia University Wisconsin; Ph.D., Marquette University.

## DIRECTORY OF CREDENTIAL INFORMATION

### **Gastrau, Karen L.**

Nursing, B.S.N., Bradley University; M.S.N., Marquette University; Licensed Advanced Practice Nurse Prescriber; Registered Nurse; Certified Adult Nurse Practitioner.

### **Guenther, Lori E.**

Nursing, B.S., University of Wisconsin-La Crosse; B.S.N., Alverno College; M.S.N., University of Phoenix; Registered Nurse.

### **Gustafson, Lisa M.**

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.A., Ottawa University; Certified Respiratory Therapist; Registered Respiratory Therapist.

### **Haldemann, Karen**

Dental Hygiene, A.A.S., Milwaukee Area Technical College; B.S., Minnesota State University; M.S., Purdue University; Registered Dental Hygienist.

### **Hilbert, Jenelle**

Surgical Technology, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Milwaukee, Certified Surgical Technologist.

### **Hilliard, Latonia D.**

Nursing, A.D.N., Waukesha County Technical College; B.S.N., Cardinal Stritch University, M.S.N., Western Governors University; Registered Nurse.

### **Honeysucker, Darlene**

Nursing, A.S.N., Cardinal Stritch University; B.S.N., Concordia University; M.S.N., Walden University; Registered Nurse.

### **Howell, Viola**

Nursing Assistant, Technical Diploma, A.A., Gateway Technical College; B.S.N., Alverno College; Registered Nurse.

### **Hughes, Rachel A.**

Dietary Manager, B.S., University of Wisconsin-Stevens Point; M.S., Mount Mary College; Certified Dietician; Registered Dietician.

### **Hutsick, Julie**

Nursing, B.S.N., Alverno College; M.S.N., Herzog University; Registered Nurse.

### **Jackson, Nicole M.**

Dental Technician, Technical Diploma, Milwaukee Area Technical College.

### **Jagodinsky, Kendyl**

Dental Hygiene, A.D., Northeast Wisconsin Technical College; B.S., Oregon Institute of Technology; Registered Dental Hygienist; Certified Laser Assisted Periodontal Therapy; Certified Local Anesthesia and Nitrous Oxide.

### **Johnson, Tomisha**

Dental Hygiene, B.S., Marquette University; M.B.A., University of Phoenix; Registered Dental Hygienist.

### **Kalluvila, Rachana T.**

Health, B.S., University of Wisconsin-Milwaukee; M.P.H., American Public University; Registered Medical Assistant.

### **Katte, Heidi L.**

Dietetic Technician, B.S., University of Wisconsin-Green Bay; M.S., Mount Mary College; Certified Dietitian; Registered Dietitian; Fellow of Academy of Nutrition and Dietetics.

### **Keihl, Samantha**

Cardiovascular Technology, A.A.S., Milwaukee Area Technical College; B.S., Southern New Hampshire University; Registered Cardiovascular Technology Invasive Specialist.

### **Kent, Victoria A.**

Nursing, B.S.N., Alverno College; M.S.N., Kaplan University; Registered Nurse.

### **Klis, Kimberly**

Nursing, B.S.N., Bryant & Stratton; M.S.N., Chamberlain University; Registered Nurse.

### **Kong, Wendy**

Cardiovascular Technology, B.S., University of Wisconsin-Milwaukee; M.S., Concordia University; Registered Diagnostic Cardiac Sonographer Adult and Pediatric Echocardiography.

### **Kunicki, Mary J.**

Surgical Technologist, B.A., Mount Mary University; Certified Surgical Technologist; Certified Registered Central Service Technician.

### **Lacy, Dana K.**

Occupational Therapy Assistant, B.S., M.S., University of Wisconsin-Milwaukee; Certified and Licensed Occupational Therapist.

### **Larson, Jeremy**

Anatomy and Physiology, B.S., Carroll University; M.S., University of Wisconsin-Milwaukee.

### **Lockbaum, Tina**

Diagnostic Medical Sonography, A.A.S., Argosy University; B.S., Moorhead State University; Registered Diagnostic Medical Sonographer (AB,OB/GYN, BR); Registered Vascular Technologist (VT).

### **Lucas, Jennifer**

Pharmacy, B.S., University of Wisconsin-Madison; PharmD, Midwestern University; Registered Pharmacist.

### **Mansfield, Paul J.**

Physical Therapist Assistant, B.S., M.P.T., Marquette University; D.P.T., College of Saint Scholastica; Licensed Physical Therapist.

### **Marbley, Diana T.**

Nursing, A.S.N., B.S.N., Cardinal Stritch University; M.S.N., University of Phoenix; Registered Nurse.

### **McDermott, Sara J.**

Medical Assistant, B.A., University of Wisconsin-Parkside; Registered Medical Assistant.

### **McKennie, Stephanie W.**

Nursing, B.S.N., University of Alabama; M.S., University of Maryland, Baltimore; Ph.D., Northcentral University; Registered Nurse.

### **McKinney, Ruthell R.**

Nursing Assistant, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., D.N.P., University of Wisconsin-Milwaukee; Registered Nurse.

### **Miller, Kristen L.**

Simulation Coordinator, Nursing, B.S., Winona State University; M.S.N., Concordia University; Registered Nurse.

### **Miller, Shelly**

Dental Hygiene, B.S., Marquette University; B.S., University of Wisconsin-Milwaukee; M.S., Concordia University; Registered Dental Hygienist.

### **Morgan, Jennifer M.**

Nursing, B.S., University of Wisconsin-Milwaukee; M.S.N., Concordia University Wisconsin; Registered Nurse.

### **Morley, Tonia M.**

Dental Hygiene, B.S., University of Minnesota; M.S., University of Wisconsin-Milwaukee; Registered Dental Hygienist.

### **Ndifor, Sylvester**

Nursing Assistant, A.A.S., Northeast Wisconsin Technical College; B.S.N., University of Wisconsin-Green Bay.

### **Nfor, Quinta**

Nursing, A.S.N., Minneapolis Community and Technical College; B.S.N., University of Wisconsin-Milwaukee; M.S.N., Maryville University; D.N.P., University of North Florida; Registered Nurse.

### **Nguyen, Nhat**

Pharmacy, PharmD, University of Wisconsin-Madison; Registered Pharmacist.

### **Nicol, Allison A.**

Nursing, A.A.S., Milwaukee Area Technical College; B.B.A., University of Wisconsin-Milwaukee; B.S.N., Marian University; M.S.N., Concordia University; Ph.D., Northcentral University; Certified Nurse Educator; Registered Nurse.

### **Nienhuis, Cynthia L.**

Dental Hygiene, Diploma, Blackhawk Technical College; A.A.S., Madison College; A.A.S., University of Wisconsin-Rock County; B.S., University of Wisconsin-Madison; M.A. Ed., National Louis University; Registered Dental Hygienist.

### **Ostrander, Wendy G.**

Health Information Technology, B.S., Ferris State University; M.S., Kent State University; Registered Health Information Administrator.

### **Paasewe, Dahlene B.**

Medical Assistant, B.S., Cuttington University College; M.B.A., Keller Graduate School of Management; M.D., A.M. Dogliotti College of Medicine, University of Liberia; Registered Medical Assistant.

# DIRECTORY

**Pano, Christina S.**

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.A., M.A. Ed., Ottawa University, Registered Respiratory Care Practitioner.

**Pietrzak, Joelle**

Clinical Laboratory Technician, B.S., Marquette University; ASCP Board Certified.

**Pitz, Holly**

Physical Therapist Assistant, B.S., University of Wisconsin-Madison; M.S., University of Wisconsin-La Crosse; D.P.T., University of Montana; Registered Physical Therapist.

**Radulovic, Tatyana T.**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., Chamberlain University; M.S.N., Concordia University; Registered Nurse; Advanced Practice Nurse Prescriber, Board Certified.

**Ramos, Rodney E.**

Medical Interpreting, B.A., University of Wisconsin-Parkside.

**Redmond, Melba L.**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Concordia University; Registered Nurse.

**Rettler, Renee**

Occupational Therapy Assistant, B.S., M.S., University of Wisconsin-Milwaukee; Licensed Occupational Therapist.

**Rice, James R.**

Nursing, A.D.N., Southwest Wisconsin Technical College; B.S., M.S.N., D.N.P., Concordia University; Registered Nurse; Advanced Practice Nurse Prescriber; Family Nurse Practitioner.

**Riese, Diane**

Surgical Technology, A.A.S., Milwaukee Area Technical College; B.A., University of Wisconsin-La Crosse; Certified Surgical Technologist.

**Ringger, Anne M.**

Nursing Assistant, A.S.N., University of Saint Francis.

**Rodriguez, Maria Cristina**

Dental Assisting, Surgeon Dentist, Universidad de Guadalajara; M.S., Cardinal Stritch University; Ed.D., Alverno College; Certified Dental Assistant; Expanded Functions Dental Assistant.

**Rojas, Mario A.**

Nursing, B.S.N., M.S.N., University of Wisconsin-Milwaukee; Registered Nurse.

**Ross, Shelby M.**

Anesthesia Technology, A.A.S., Milwaukee Area Technical College; Certified Anesthesia Technologist.

**Rumler, Angela.**

Nursing, B.S.N., Alverno College; M.S.N. Chamberlain University; Registered Nurse.

**Schlund, Dwayne M.**

Respiratory Therapist, B.A., University of Wisconsin-Whitewater; M.A. Ed., Ottawa University; Certified Respiratory Therapist; Registered Respiratory Therapist.

**Shumpert, Jill L.**

Renal Dialysis, Diploma, Milwaukee Area Technical College; Certified Renal Dialysis Technician.

**Silloway, Quinn**

Nursing, B.S.N., University of Wisconsin-Milwaukee; M.S.N., Grand Canyon University; Registered Nurse.

**Silva, Betzaida**

Dietetic Technician, B.S., University of Puerto Rico; M.S., Mount Mary College; Registered Dietitian Nutritionist (R.D.N.); Certified Dietitian (CD, Wisconsin); Licensed Dietitian Nutritionist (L.D.N., Puerto Rico).

**Simenz, Stacy L.**

Nursing, B.S.N., Viterbo University; M.S.N., D.N.P., Marquette University; Registered Nurse; Certified Adult Nurse Practitioner; Licensed Advanced Practice Nurse Prescriber.

**Skenandore, Kristine R.**

Radiologic Technology, A.A.S., Milwaukee Area Technical College; B.S., Florida Hospital College of Health Sciences; M.H.A., University of Phoenix; Licensed Radiographer; Registered Radiologic Technologist.

**Smith, Re'Nesa B.**

Nursing Assistant, A.S.N., Bryant & Stratton; B.S.N., University of Wisconsin-Milwaukee; Registered Nurse.

**Soik, Lisa**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Chamberlain University; Registered Nurse.

**Sopa, Dawn**

Nursing, A.S.N., Milwaukee Area Technical College; B.S.N., M.S.N., Chamberlain College Nursing; Registered Nurse.

**Stikel, Henry P.**

Nursing, A.D.N., Milwaukee Area Technical College; B.S.N., M.S.N., Marian University; D.N.P., Concordia University.

**Swinnie, Victoria N.**

Clinical Laboratory Technician, B.S., University of Wisconsin-Milwaukee; M.A., Alverno College; Registered Medical Technologist.

**Teufel, Stephanie**

Dental Hygiene, Technical Diploma, Waukesha County Technical College; A.A.S., University of Wisconsin-Washington County; A.A.S., Milwaukee Area Technical College; B.A.A.S., University of Wisconsin-Waukesha; M.Ed., Carroll University; Registered Dental Hygienist.

**Tucker, Jasmine M.**

Nursing, B.S.N., M.S.N., Tennessee State University; Registered Nurse.

**Vehmas, Tania P.**

Dental Hygiene, A.A.S., Milwaukee Area Technical College; B.S., University of Bridgeport; M.Ed. Post University; Registered Dental Hygienist.

**Weist, Julie**

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., Marian University; M.S.N., Grand Canyon University; Registered Nurse.

**Whitehead, Nancy L.**

Nursing, BSN, University of Wisconsin-Oshkosh; M.S.N., University of Wisconsin-Milwaukee; Ph.D., Northcentral University; Registered Nurse; Advanced Practice Nurse Prescriber; Family Nurse Practitioner Board Certified.

**Woods, Sadie L.**

Clinical Laboratory Technician, A.A.S., Milwaukee Area Technical College; B.S., Siena Heights University; ASCP Board Certified.

**York, Karen A.**

Nursing, B.S.N., University of Wisconsin-Madison; M.S.N., Concordia University; Registered Nurse.

**Zielinski, Laurie J.**

Health, B.A., University of Wisconsin-Milwaukee; American Board of Opticianry Certification; National Contact Lens Certification.

## Manufacturing, Construction & Transportation Faculty

**Alsop-Kingery, Rebecca L.**

Dean, Manufacturing, Construction & Transportation Pathway, B.B.A., Eastern Michigan University; M.S., University of Wisconsin-Milwaukee.

**Anderson, Scott J.**

Automobile-Mechanical, A.A.S., Waukesha County Technical College; ASE Certified Master Automotive Technician.

**Barbour III, Charles R.**

Air Conditioning and Refrigeration Technology, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Steamfitter.

**Bartley, Doni W.**

Air Conditioning and Refrigeration Technology, A.A.S., Milwaukee Area Technical College; B.S., M.S., Ed.D., University of Wisconsin-Stout.

**Bautch, Gary**

Truck Driving, Commercial Driver's License.

**Burazin, Guy Anthony**

Welding, A.A.S., Milwaukee Area Technical College; Licensed Weld Test Conductor.

**Cech, Christin**

Power Plant Engineer, Certificate, Technical Diploma, A.A.S., Milwaukee Area Technical College; Power Plant Operating Engineer Chief; American Society of Power Engineers.

## DIRECTORY OF CREDENTIAL INFORMATION

**Cervený, Lee M.**

Industrial Welding Technology, A.A.S., Milwaukee Area Technical College; AWS CWI Certified Welding Inspector; CRAW-T Certified Robotic Arc Welding Technician.

**Chomicki, Chris A.**

Machine Shop, A.A.S., Milwaukee Area Technical College; B.A., Ottawa University.

**Cook, Levi M.**

Electricity, Apprenticeship; Journeyman Wireman; Master Electrician.

**Cotter, Brian J.**

Carpentry, Diploma, Eastern Maine Community College; B.S., Granite State University; M.B.A., Trident University.

**Diaz, Guillermo**

Tool & Die Making, Apprenticeship; Journeyman Tool & Die Maker.

**Dietz, Joseph T.**

Horticulture, A.A.S., Milwaukee Area Technical College; B.F.A., University of Wisconsin-Stout; I.S.A. Certified Arborist.

**Dricken, Robert L.**

Welding, A.A.S., A.A.S., Milwaukee Area Technical College; A.A.S., B.S., Milwaukee School of Engineering; AWS CWE Certified Welding Educator; AWS CWI Certified Welding Inspector; Certified Weld Test Conductor.

**Drzymcinski, Douglas J.**

Steamfitting, Apprenticeship; Journeyman Steamfitter.

**Feliciano, Karen**

Welding, Diploma, A.A.S., Waukesha County Technical College; AWS CWI Certified Welding Inspector.

**Fisler, Scott J.**

Automobile-Mechanical, ASE Certified Master Automotive Technician.

**Forcica, Elsa**

Welding, A.A.S., Milwaukee Area Technical College; AWS CWI Certified Welding Inspector.

**Gahan, Jeffery A.**

Automotive Technology, A.A.S., Milwaukee Area Technical College; ASE Certified Master Automotive Technician.

**Golden, Douglas E.**

Airframe & Aircraft Technology, Diploma, Milwaukee Area Technical College; FAA Airframe/Powerplant Certified.

**Grossert, Jay G.**

Automotive Technology, B.S., Carthage College; M.S., University of Wisconsin-Milwaukee; ASE Master Automobile, A9, G1, L1, L2.

**Guerrero, Zachary A.**

Welding, B.A., University of Wisconsin-Milwaukee; AWS CWI Certified Welding Inspector; Licensed Welder.

**Hanson, Patrick S.**

Industrial Equipment Mechanic, ASE Master Automotive Technician, L1, G1; Certified Hydraulic and Pneumatic Systems.

**Heinrichs, Joseph P.**

Air Conditioning and Refrigeration Technology, A.A.S., Milwaukee Area Technical College; B.A., Carthage College.

**Hartzheim, Michael R.**

Tool & Die Making, Two-Year Technical Diploma, Milwaukee Area Technical College; Apprenticeship; Journeyman Mold Maker.

**Hoernke, Donald M.**

Electricity, Apprenticeship; Journeyman Electrician.

**Hoffmann, David M.**

Automotive Technology, A.A.S., Milwaukee Area Technical College; ASE Certified Master Automotive Technician.

**Iwanski, Darrel K.**

Welding, Apprenticeship; Sheet Metal Journeyman; AWS CWI Certified Welding Inspector; State Weld Test Conductor.

**Jackson, Nicole M.**

Dental Technician, Technical Diploma; A.A.S., Milwaukee Area Technical College; Certified Dental Technician (CDT); Technologist (TE).

**Jelen, Piotr**

Truck Driving, Short-Term Diploma, Technical Diploma, A.A.S., Milwaukee Area Technical College; Commercial Driver's License.

**Kachar, Mathew**

Airframe & Aircraft Technology, Technical Diploma, Milwaukee Area Technical College; B.S., Marquette University; FAA Airframe/Powerplant Certified.

**Kaiser, Tyler**

Automotive, Diploma, Universal Technical Institute; ASE Certified Automotive Master Technician; Master Technician BMW.

**Kennedy, Thomas V.**

Electricity, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Stout; Apprenticeship; IBEW Journeyman Inside Wireman; Certified Master Electrician; Certified Electrical Inspector; WI Licensed Designer of Engineering Systems; OSHA Authorized Construction Trainer.

**Kern, Tyre G.**

Welding, A.A.S., Milwaukee Area Technical College; Certified Weld Test Conductor.

**Kirk, Chinita**

Welding, A.A.S., Waukesha County Technical College.

**Kolberg, Alan R.**

Air Conditioning and Refrigeration Technology, B.S., University of Wisconsin-Stevens Point; Journeyman Steamfitter.

**Kroll, Kevin P.**

Bricklaying & Masonry, B.S., University of Wisconsin-Stevens Point.

**Kruegel, Matthew C.**

Auto Collision Repair/Refinish, Diploma, Milwaukee Area Technical College; B.S., University of Wisconsin-Stout.

**Kuehl, Craig D.**

Diesel, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Stout.

**Lewis, Andrew D.**

Air Conditioning and Refrigeration Technology, Apprenticeship; Journeyman Steamfitter.

**Lockett, Gordon W.**

Plumbing, Diploma, A.A.S., Milwaukee Area Technical College; Master Plumber.

**Lorino, John Joseph**

Truck Driving, A.A.S., Milwaukee Area Technical College; Commercial Driver's License.

**Lunz, David P.**

Welding, Apprenticeship; A.A.S., Milwaukee Area Technical College; Iron Worker Journeyman.

**McDonald, Charles E.**

Electricity, One-Year Technical Diploma, Milwaukee Area Technical College; Apprenticeship.

**Michels, Patrick**

Carpentry, One-Year Technical Diploma, Milwaukee Area Technical College.

**Moen, Mark A.**

Airframe & Aircraft Technology, Diploma, Milwaukee Area Technical College; FAA Airframe/Powerplant Certified.

**Molinski, Douglas J.**

Electricity, Apprenticeship; A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Green Bay; Master Electrician.

**Nash, Eddie**

Electrical Power Distribution, B.A., Concordia University.

**Nelson, Todd W.**

Steamfitting, Certificate, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Steamfitter.

**O'Boyle, Johanna**

Landscape Horticulture, A.A., Milwaukee Area Technical College.

**Pappalardo, Lawrence P.**

Cabinetmaking, Technical Diploma, Milwaukee Area Technical College.

**Pecard Jr., Howard A.**

Sheet Metal, Apprenticeship; Sheet Metal Journeyman.

**Peterson, William J.**

Welding, A.A.S., Milwaukee Area Technical College; AWS CWI Certified Welding Inspector.



# DIRECTORY

**Plewa, Craig M.**

Truck Driving, Commercial Driver's License.

**Pribyl, Jon R.**

Airframe & Aircraft Technology, Diploma, Milwaukee Area Technical College; FAA Airframe/Powerplant Certified.

**Reindl, Matthew**

Electricity, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Lineman.

**Reinke, Linda M.**

Automotive Technology, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin-Stout.

**Rettig, Andrew**

Electricity, Apprenticeship; B.S., University of Wisconsin-Platteville.

**Richards, Debra L.**

Air Conditioning and Refrigeration Technology, A.A.S., University of Wisconsin-Washington County; B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Stout, Journeyman Steamfitter.

**Robinson, Michele**

Electricity, B.A., University of Wisconsin-Milwaukee; Journeyman Electrician; Licensed Electrician.

**Rooney, Mary B.**

Machine Shop, Apprenticeship; A.A.S., Milwaukee Area Technical College; Tool Room Machinist Journeyman.

**Roseland, Paul J.**

Sheet Metal, Apprenticeship; Sheet Metal Journeyman.

**Runte, Donald T.**

Auto Collision Repair/Refinish, Diploma, Milwaukee Area Technical College; ASE Certified Collision Repair Technician.

**Savage, Joseph A.**

Electricity, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Electrician.

**Schallitz, Adam L.**

Automobile-Mechanical, A.A.S., Milwaukee Area Technical College; ASE Certified Master Automotive Technician; Ford Senior Master Technician Certification.

**Schmidt, Glen J.**

Air Conditioning and Refrigeration Technology, Apprenticeship; Journeyman Steamfitter.

**Schuttke, Mitchell A.**

Tool & Die Making, Apprenticeship, Milwaukee Area Technical College; Journeyman Tool and Die Maker.

**Schwanz, Erik J.**

Automobile-Mechanical, Diploma, Wyoming Technical College; A.A.S., Milwaukee Area Technical College; ASE Certified Master Automobile Technician.

**Skattebo, Mark A.**

Machine Shop, Apprenticeship; Journeyman Toolmaker.

**Smith, Ira D.**

Machine Shop, Diploma, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman.

**Sroka, Beverly J.**

Carpentry, A.A.S., Milwaukee Stratton College; One-Year Technical Diploma, One-Year Technical Diploma, Milwaukee Area Technical College.

**Tazalla, Michael**

Sheet Metal, Apprenticeship, Sheet Metal.

**Trussoni, Joseph M.**

Automobile-Mechanical, A.A.S., Waukesha County Technical College; ASE Certified Master Automobile Technician.

**Wezyk, Terry J.**

Machine Shop, Apprenticeship; Journeyman Machinist.

**Weiss, Laurie**

Landscape Horticulture, B.S., M.S., University of Wisconsin-Madison.

**Wimmer, Charles J.**

Electricity, A.A.S., Milwaukee Area Technical College; Journeyman Electrician.

**Wissmueller, Adam**

Welding, Diploma, B.S., Concordia University.

**Wolf, Dakota**

Diesel, One-Year Technical Diploma, Milwaukee Area Technical College; ASE Certified Master Medium/Heavy Truck Technician.

**Young, Daniel E.**

Automobile-Mechanical, A.A.S., Waukesha County Technical College; ASE Certified Master Automobile Technician; General Motors Certified Engine Performance Specialist.

**Zdrojewski, Daniel R.**

Truck Driving, A.A.S., ITT Technical Institute; B.S., University of Phoenix; Commercial Driving License.

## Science, Technology, Engineering & Mathematics Faculty

**Jenkins, Michael**

Interim Dean, B.A., Dartmouth College; M.S., University of Wisconsin-Madison; Ph.D., Cardinal Stritch University.

**Arnold, Jonathan B.**

IT-Support, B.A., University of Wisconsin-La Crosse; M.B.A., University of Wisconsin-Milwaukee.

**Arocho-Perez, Freddie**

Physical Sciences, B.S., University of Puerto Rico; M.S., Purdue University; Ph.D., Lehigh University.

**Bannon, Bernard J.**

Electronic Technology, B.S.E.E., Milwaukee School of Engineering; Professional Engineer.

**Barr, Kristen**

Natural Sciences, B.S., Carroll University; Ph.D., Medical College of Wisconsin.

**Bekele, Tafesse W.**

Biological Sciences, M.S., University of Edinburgh; M.S., University of Wisconsin-Milwaukee; Ph.D., Swedish University of Agricultural Sciences (Sveriges Lantbruksuniversitet), Sweden; D.V.M., Addis Ababa University.

**Bettinger, Noel**

Civil Engineering Technology, A.A.S., Milwaukee Area Technical College.

**Borysenko, Dina**

Physical Sciences, B.S., M.S., Kharkiv State Polytechnical University.

**Burch, Tim J.**

Physical Sciences, B.S., North Central College; Ph.D., Medical College of Wisconsin.

**Buschhaus, Karl R.**

Electronic Technology, A.A.S., Milwaukee Area Technical College; B.S.E., University of Wisconsin-Milwaukee; LL.M., J.D., University of New Hampshire.

**Cape, Michael F.**

Physical Sciences, B.S., M.S., University of Wisconsin-Milwaukee.

**Christie, Janese**

IT-Programming Development, B.S., University of Wisconsin-Milwaukee; M.S., Marquette University.

**Colmerauer, Marie N.**

Physical Sciences, B.S., University of Wisconsin-Madison; M.S., The Ohio State University.

**Conley, Lisa K.**

Biological Sciences, A.S., University of Wisconsin-Barron County; B.S., University of Wisconsin-La Crosse; Ph.D., University of Wisconsin-Milwaukee.

**Crain, Jessica M.**

Physical Sciences, B.S., Ph.D., University of Wisconsin-Madison.

**Crockett Jr., Jimmy**

Biological Sciences, B.S., Howard University; Ph.D., Medical College of Wisconsin.

**Dougherty, Sean P.**

Biological Sciences, B.A., Marquette University; M.A., Ph.D., Indiana University Bloomington.

**Elsharif, Rafat R.**

IT-Networking, B.S., University of Wisconsin-Milwaukee; M.S., Cardinal Stritch University; Ph.D., University of Wisconsin-Milwaukee.

**Feder, Patrick E.**

IT-Networking, B.S., University of Wisconsin-Madison; M.S., Marquette University.

## DIRECTORY OF CREDENTIAL INFORMATION

**Ferrara, Brandy R.**

Biological Sciences, B.A., University of Wisconsin-Milwaukee; B.S., D.C.M., National University of Health Sciences; M.S., University of Bridgeport.

**Giannini, Shalita T.**

Physical Sciences, B.A., Lutheran College; Ph.D., Marquette University.

**Goodman, Alan D.**

Quality Engineer Technology, B.S., Hampton University; M.B.A., Temple University; Certified Six Sigma Black Belt.

**Gunderson, Sara**

Electronic Technology, A.A.S., Milwaukee Area Technical College.

**Hartley, Mariam V.**

Biological Sciences, B.S., University of Wisconsin-Madison; M.S., University of Wisconsin-Milwaukee; Ph.D., Medical College of Wisconsin.

**Hohn, Sarah J.**

Mechanical Technology, A.A.S., Lakeshore Technical College; B.A.S., Bemidji State University Minnesota; M.B.A., Capella University.

**Holmes, Lyah N.**

Biological Sciences, A.D.N., Milwaukee Area Technical College; B.A., Cardinal Stritch University; M.S.N., D.N.P., Marquette University.

**Hunsicker, Michael S.**

IT-Programming Development, B.A., St. Ambrose University; M.A., Marquette University; M.L.I.S., University of Wisconsin-Milwaukee.

**Inyang, Daniel O.**

Architectural Technology, A.A.S., Milwaukee Area Technical College; B.S., M. Arch., M. Urban Plan, University of Wisconsin-Milwaukee; xAICP; Licensed Wisconsin Architect.

**Jones, Elijah M.**

IT-Programming Development, A.A.S., Milwaukee Area Technical College; B.A., Lakeland University; M.S., Middle Georgia State University; Microsoft Certified Technology Specialist.

**Jones, Sherrea A.**

Natural Sciences, B.S., University of Wisconsin-Madison; Ph.D., Marquette University.

**Kalluvila, Thomas A.**

Biological Sciences, B.S., University of Kerala; M.S., Ph.D., University of Wisconsin-Milwaukee.

**Kerschen, Edward J.**

Biological Sciences, B.S., Alma College; Ph.D., University of Dayton.

**Kindschi, Jason C.**

Biological Sciences, B.S., University of Wisconsin-Madison; D.C., Northwestern Health Sciences University.

**Kirsch, Brian C.**

IT-Networking, B.S., American Intercontinental University; M.Ed., American InterContinental University.

**Larson, Jeremy**

Anatomy and Physiology, B.S., Carroll University; M.S., University of Wisconsin-Milwaukee.

**Lee, Geoffrey**

Biological Sciences, B.A., Marquette University; M.S., Rosalind Franklin University of Medicine and Science.

**Lieberthal, Jerry N.**

IT-Networking, B.S., M.S., University of Wisconsin-Milwaukee.

**Luksic, Monica I.**

Biological Sciences, B.S., University of Wisconsin-Milwaukee; M.S., University of Maryland-College Park.

**Madden, Cristine J.**

Biological Sciences, B.S., University of South Carolina; M.S., University of Wisconsin-Oshkosh; M.B.A., University of Wisconsin-Milwaukee.

**Martinez, Joseph L.**

IT-Networking, A.A.S., B.S., ITT Technical Institute; M.B.A., University of Phoenix.

**Matzen, Chad D.**

Electronic Technology, A.A.S., Milwaukee Area Technical College; Certified Biomedical Equipment Technician.

**Menzi, Robert**

IT Web & Software Development, B.S., Purdue University; M.S., Illinois Institute of Technology; M.M., Northwestern University.

**McHugh, Patrick K.**

IT-Networking, B.A., University of Wisconsin-Milwaukee; M.B.A., Keller Graduate School of Management.

**McLeod, Tina M.**

Biological Sciences, B.S., University of Wisconsin-Whitewater; M.S., Logan College of Chiropractic; D.C., Palmer College of Chiropractic.

**Mikhailenko, Vadim**

IT-Support, B.S., M.S., Belarusian State University; M.B.A., Keller Graduate School of Management.

**Nadi, Emad T.**

Civil Engineering Technology, B.S., Marquette University; M.S., University of Wisconsin-Milwaukee; Ph.D., Marquette University.

**Neumann, Veronica C.**

Biological Sciences, B.S., M.S., University of Alabama.

**Norman, Cheryl B.**

Biological Sciences, B.S., University of Wisconsin-Milwaukee; Ph.D., Medical College of Wisconsin.

**Riley, Patrick**

Architectural Technology, B.A., MArch., University of Wisconsin-Milwaukee.

**Rogers-McMahon, Charlene J.**

Natural Sciences, B.A., Concordia College; Ph.D., University of Minnesota.

**Ryan, Christine M.**

Biological Sciences, B.S., Ph.D., Marquette University; M.S., Sarah Lawrence College.

**Schlipp, Scott A.**

Natural Sciences, A.A.S., Milwaukee Area Technical College; B.S., M.S., University of Wisconsin-Milwaukee.

**Schmid, Marie C.**

Natural Sciences, B.S., M.S., University of Wisconsin-Milwaukee.

**Schmocker, David J.**

Electronic Technology, A.A.S., B.S., Milwaukee School of Engineering; M.B.A., Marquette University; Professional Engineer.

**Schroeder, Christopher J.**

Natural Sciences, B.S., University of Wisconsin-Milwaukee; M.S., Mississippi State University; M.L.S., University of Maryland; M.S.Ed, M.S., Slippery Rock University.

**Shahnoor, Nazima**

Natural Sciences, B.S., M.S., Ozmania University; M.S., University of Sheffield; Ph.D., University of Wisconsin-Milwaukee.

**Slioski, Nadi W.**

Chemical Technology, B.S, Institute of Chemistry, Ceylon; M.S., University of Louisiana-Monroe Colombo; Ph.D., Medical College of Wisconsin.

**Smith, Debra L.**

Mechanical Technology, B.S., University of Wisconsin-Madison; M.S., Milwaukee School of Engineering; Ph.D., Marquette University.

**Tchesnokova, Elena V.**

Physical Sciences, B.S., M.S., Ph.D., Kiev Polytechnic Institute, Ukraine; Ph.D., D.Sc., Institute of Organic Chemistry, Polish Academy of Sciences.

**Thompson, James**

Mechanical Technology, B.S., University of Wisconsin-Milwaukee.

**Welcenbach, Joseph**

Electronic Technology, A.A.S., Milwaukee Area Technical College; B.S., Milwaukee School of Engineering; M.S., Marquette University.

**Wingard-Haynes, Brenda E.**

Physical Sciences, B.B.A., Iowa State University; M.S., University of Virginia.

**Xue, Young**

Natural Sciences, B.S., Sichuan University; M.S., University of Illinois at Chicago; Ph.D., University of Illinois Chicago.

# MATC DISTRICT BOARD OF DIRECTORS

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**Bria Burris**

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Clinics and Vice President of Medical Affairs  
of the Independent Physicians Network

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Elected Official  
Wisconsin State Representative for District  
17, Wisconsin State Assembly

**Dr. Tina Owen-Moore**

Board Clerk/Director of the Office of Board  
Governance, Milwaukee Public Schools

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