

ITDEV-154: Data Structures and Programming

Course Description:

This course focuses on advanced data structures used in programming. Students will solve problems using advanced data structures such as graphs, trees, queues, stacks, linked lists, and heaps. MATC strongly recommends that students complete ITDEV-140, or have equivalent skills prior to enrolling in this class.

Total Credits: 3.00

Course Competencies

- 1. Solve problems using algorithms**
- 2. Use fundamental programming constructs**
- 3. Construct fundamental data structures**
- 4. Create object-oriented programs**
- 5. Program using recursion**
- 6. Perform basic algorithm analysis**
- 7. Implement fundamental computing algorithms**
- 8. Perform software validation**