

## **MCDESG-114: SolidWorks 1**

### Course Description:

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.

\*To apply for CPLE –Students must attach certification to portfolio:

- CSWA Certification

Total Credits: 2.00

### Course Competencies

- 1. Produce part sketches following a given design**
- 2. Produce an extruded part**
- 3. Produce a revolved part**
- 4. Produce a part using reference features (planes, axes, points)**
- 5. Produce a part with placed features (fillet, chamfer)**
- 6. Add Ribs to a Part**
- 7. Produce holes in parts to match fasteners**
- 8. Produce a part with patterns**
- 9. Edit parts**
- 10. Assign Units to a Part**
- 11. Produce a simple assembly using 3D parts**
- 12. Produce an orthographic drawing from a 3D part file**
- 13. Produce an Orthographic Drawing from a 3D Assembly file**
- 14. Utilize Rapid Prototype in design process**