

Associate in Applied Science, Advanced Design and Manufacturing - Manufacturing Design Option

Degree Type
A.A.S.

Student Learning Outcomes

Graduates of the Advanced Design & Manufacturing Program will be able to:

- Demonstrate proper use of precision measurement tools to accurately inspect and document the features of a part. (ADM 101) (ADM 155) (ADM 261)
- Read and interpret industry-standard technical drawings & annotations of mechanical parts and assemblies. (ADM 110) (ADM 215)
- Use 2D CAD software to produce industry-standard technical drawings of mechanical parts. (ADM 107) (DDT 220)
- Use 3D CAD software to produce parametric solid models and industry-standard technical drawings of mechanical parts and assemblies. (MDT 147) (MDT 202) (ADM 155)
- Use additive manufacturing technology to create scaled prototypes of mechanical parts. (ADM 160) (ADM 155) (ADM 261)
- Demonstrate good soft skills and a high level of workplace readiness. (ADM 155)

Success Guide

Area I - IV Academic Courses

| Item # | Title | Credits |
|--------|---|---------|
| | English Elective Group (ADM) | 3 |
| | Speech Elective Group (ADM) | 3 |
| | Fine Arts Elective Group (AAS) | 3 |
| | Computer Science Elective Group (ADM) | 3 |
| | Mathematics Elective Group (ADM) | 3 |
| | History, Social, & Behavioral Sciences Elective Group (AAS) | 3 |

Area V Core ADM Technical Courses

| Item # | Title | Credits |
|---------|---|---------|
| | Precision Measurement Group (ADM) | 3 |
| ADM 110 | BLUEPRINT READING | 3 |
| ADM 107 | CAD CONCEPTS | 3 |
| | Design Innovation & Engineering Foundations Group (ADM) | 3 |
| ADM 108 | INTRO TO 3D MODELING | 3 |
| ADM 160 | ADDITIVE MANUFACTURING PRODUCTION TECHNIQUES | 3 |
| | Intermediate Solid Modeling Group (ADM) | 3 |
| ADM 155 | MANUFACTURING PROJECTS | 3 |
| WKO 131 | MSSC SAFETY COURSE | 3 |
| WKO 106 | WORKPLACE SKILLS | 3 |
| | Technical Cooperative Education | 3 |
| ADM 215 | GEOMETRIC DIMENSIONING & TOLERANCING | 3 |

Area V Emphasis Courses

| Item # | Title | Credits |
|---------|---|---------|
| ENT 106 | PRINCIPLES OF ENGINEERING TECHNOLOGY | 3 |
| ENT 223 | MATERIALS SELECTION | 3 |
| ENT 221 | INDUSTRIAL QUALITY AND PRODUCTIVITY | 3 |
| | Advanced Solid Modeling Group (ADM) | 3 |
| | Reverse Engineering or Application of Design Elective Group (ADM) | 3 |
| | Total Credits | 69 |