

Associate in Applied Science, Advanced Design and Manufacturing - CAD/CAM 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)

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
MTT 140	BASIC COMPUTER NUMERICAL CONTROL TURNING PROGRAMMING I	3
MTT 141	BASIC COMPUTER NUMERICAL CONTROL MILLING PROGRAMMING I	3
MTT 212	ADVANCED COMPUTER NUMERICAL CONTROL TURNING	3
MTT 213	ADVANCED COMPUTER NUMERICAL CONTROL MILLING	3
ADM 255	APPLICATION OF DESIGN (CAPSTONE)	3
	Total Credits	69