Advanced Design and Manufacturing

Advanced Design and Manufacturing Degrees

Advanced Design and Manufacturing Student Learning Outcomes

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)*
- 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)*
- 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)*
- Demonstrate good soft skills and a high level of workplace readiness. *(ADM 155)*

Associate in Applied Science, Advanced Design and Manufacturing - Additive Manufacturing 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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - Technical Cooperative Education	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3

Area V Emphasis Courses

Item #	Title	Credits
ADM 162	ADDITIVE MANUFACTURING PROCESSES - POLYMERS	3
ADM 164	ADDITIVE MANUFACTURING PROCESSES - METALS	3
ADM 210	DESIGN FOR MANUFACTURING	3
ADM 261	REVERSE ENGINEERING	3
	ADM Additive Manufacturing CAPSTONE	3
	Total Credits	69

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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - 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
	CAD/CAM Capstone (ADM)	3
	Total Credits	69

Associate in Applied Science, Advanced Design and Manufacturing - Drafting 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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - Technical Cooperative Education	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3

Area V Emphasis Courses

Item #	Title	Credits
	Technical Drawing / Intermediate 3D	3
MTT 218	COMPUTER INTEGRATED MANUFACTURING (CIM)	3
	Advanced Solid Modeling Group (ADM)	3
	Advanced Technical Drawing Elective (ADM)	3
	Drafting Capstone Elective (ADM)	3
	Total Credits	69

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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - Technical Cooperative Education	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3

Area V Emphasis Courses

Item #	Title	Credits
ENT 106	PRINCIPLES OF ENGINEERING TECHNOLOGY	3
	ADM Process / Materials	3
	ADM Industrial Quality & Productivity	3
	Advanced Solid Modeling Group (ADM)	3
	Manufacturing Design Capstone Elective (ADM)	3
	Total Credits	69

Associate in Applied Science, Advanced Design and Manufacturing - Manufacturing Systems 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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - Technical Cooperative Education	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3

Area V Emphasis Courses

Item #	Title	Credits
ADM 295	MSSC GREEN PRODUCTION	3
	Process Elective (ADM)	3
	Productivity Elective (ADM)	3
ADM 277	INDUSTRIAL ENERGY SOURCES & SUSTAINABILITY	3
ADM 281	ADVANCED MANUFACTURING PROCESSES/NEW AND EMERGING ENERGY TECHNOLOGIES	3
	Total Credits	69

Associate in Applied Science, Advanced Design and Manufacturing - Production Technician 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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - Technical Cooperative Education	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3

Area V Emphasis Courses

Item #	Title	Credits
WKO 132	MSSC QUALITY PRACTICES AND MEASUREMENT	3
WKO 133	MSSC MANUFACTURING PROCESSES AND PRODUCTION	3
WKO 134	MSSC MAINTENANCE AWARENESS	3
	Advisor Approved Elective - Production Group (ADM)	6
	Total Credits	69

Associate in Applied Science, Advanced Design and Manufacturing - Quality Control & Inspection 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 Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
	Manufacturing Fundamentals Elective (ADM-core)	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
	ADM - Technical Cooperative Education	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3

Area V Emphasis Courses

Item #	Title	Credits
	ADM Applied Metrology & Quality Practices	3
ADM 106	QUALITY CONTROL CONCEPTS	3
	Industrial Quality or Design for Mfr. Elective (QC)	3
	Materials Selection or Reverse Engineering Elective (QC)	3
	ADM Quality Control Capstone	3
	Total Credits	69

Certificate, Advanced Design and Manufacturing - Additive Manufacturing Option

Degree Type
Certificate

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
ADM 108	INTRO TO 3D MODELING	3
ADM 160	ADDITIVE MANUFACTURING PRODUCTION TECHNIQUES	3
ADM 162	ADDITIVE MANUFACTURING PROCESSES - POLYMERS	3
ADM 164	ADDITIVE MANUFACTURING PROCESSES - METALS	3
	Total Credits	33

Certificate, Advanced Design and Manufacturing - CAD/CAM Option

Degree Type
Certificate

Success Guide

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
ADM 108	INTRO TO 3D MODELING	3
MTT 218	COMPUTER INTEGRATED MANUFACTURING (CIM)	3
MTT 140	BASIC COMPUTER NUMERICAL CONTROL TURNING PROGRAMMING I	3
MTT 141	BASIC COMPUTER NUMERICAL CONTROL MILLING PROGRAMMING I	3
	Total Credits	33

Certificate, Advanced Design and Manufacturing - CADD Option

Degree Type
Certificate

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
ADM 107	CAD CONCEPTS	3
ADM 108	INTRO TO 3D MODELING	3
	Technical Drawing / Intermediate 3D	3
	Intermediate Solid Modeling Group (ADM)	3
	Total Credits	33

Certificate, Advanced Design and Manufacturing - Manufacturing Systems Option

Degree Type
Certificate

Success Guide

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
ADM 295	MSSC GREEN PRODUCTION	3
	Process Elective (ADM)	3
	Productivity Elective (ADM)	3
ADM 277	INDUSTRIAL ENERGY SOURCES & SUSTAINABILITY	3
	Total Credits	33

Certificate, Advanced Design and Manufacturing - Production Technician Option

Degree Type
Certificate

Success Guide

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
WKO 132	MSSC QUALITY PRACTICES AND MEASUREMENT	3
WKO 133	MSSC MANUFACTURING PROCESSES AND PRODUCTION	3
WKO 134	MSSC MAINTENANCE AWARENESS	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3
	Total Credits	33

Certificate, Advanced Design and Manufacturing - Quality Control & Inspection Option

Degree Type
Certificate

Success Guide

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
ADM 106	QUALITY CONTROL CONCEPTS	3
	Industrial Quality or Design for Mfr. Elective (QC)	3
	Materials Selection or Reverse Engineering Elective (QC)	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3
	Total Credits	33

Certificate, Advanced Design and Manufacturing - Technical Drawing Option

Degree Type
Certificate

Success Guide

Area I - IV Academic Courses

Item #	Title	Credits
	English Elective Group (ADM)	3
	Mathematics Elective Group (ADM)	3
	Computer Science Elective Group (ADM)	3

Area V Core ADM Technical Courses

Item #	Title	Credits
WKO 131	MSSC SAFETY COURSE	3
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals Elective (ADM-core)	3
ADM 107	CAD CONCEPTS	3
	Technical Drawing / Intermediate 3D	3
	Advanced Technical Drawing Elective (ADM)	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3
	Total Credits	33

Short-Term Certificate, Advanced Design and Manufacturing - 3D Modeling Option

Degree Type
Certificate

Success Guide

Area V Core ADM Technical Courses

Item #	Title	Credits
ADM 110	BLUEPRINT READING	3
	Manufacturing Fundamentals - (ADM-Additive)	3
ADM 108	INTRO TO 3D MODELING	3
	3D Modeling Sequence (ADM)	6
	Total Credits	15

Short-Term Certificate, Advanced Design and Manufacturing - Additive Manufacturing Option

Degree Type
Certificate

Success Guide

Area V Core ADM Technical Courses

Item #	Title	Credits
	Precision Measurement Elective (ADM)	3
	Manufacturing Fundamentals - (ADM-Additive)	3
ADM 108	INTRO TO 3D MODELING	3
ADM 160	ADDITIVE MANUFACTURING PRODUCTION TECHNIQUES	3
ADM 162	ADDITIVE MANUFACTURING PROCESSES - POLYMERS	3
ADM 155	MANUFACTURING PROJECTS	3
	Total Credits	18

Short-Term Certificate, Advanced Design and Manufacturing - CAD/CAM Option

Degree Type
Certificate

Success Guide

Area V Core ADM Technical Courses

Item #	Title	Credits
ADM 107	CAD CONCEPTS	3
ADM 108	INTRO TO 3D MODELING	3
MTT 218	COMPUTER INTEGRATED MANUFACTURING (CIM)	3
ADM 155	MANUFACTURING PROJECTS	3
	Total Credits	12

Short-Term Certificate, Advanced Design and Manufacturing - CADD Option

Degree Type
Certificate

Success Guide

Area V Core ADM Technical Courses

Item #	Title	Credits
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
ADM 108	INTRO TO 3D MODELING	3
	Technical Drawing / Intermediate 3D	3
	Total Credits	12

Short-Term Certificate, Advanced Design and Manufacturing - Manufacturing Design Option

Degree Type
Certificate

Success Guide

Area V Core ADM Technical Courses

Item #	Title	Credits
	Precision Measurement Elective (ADM)	3
	Manufacturing Fundamentals Elective (ADM-core)	3
	ADM Process / Materials	3
ADM 155	MANUFACTURING PROJECTS	3
ADM 215	GEOMETRIC DIMENSIONING & TOLERANCING	3
	Total Credits	15

Short-Term Certificate, Advanced Design and Manufacturing - Technical Drawing Option

Degree Type
Certificate

Success Guide

Area V Core ADM Technical Courses

Item #	Title	Credits
	Precision Measurement Elective (ADM)	3
ADM 110	BLUEPRINT READING	3
ADM 107	CAD CONCEPTS	3
ADM 108	INTRO TO 3D MODELING	3
	Technical Drawing / Intermediate 3D	3
	Advanced Technical Drawing Elective (ADM)	3
	Total Credits	18