

Manufacturing Engineering Technology

Courses and Activities Mapped to BS in Manufacturing Engineering Technology

Program Objective A: Mastery of knowledge and tools				Program Objective B: Effective Problem Solving			Program Objective C: Effective communication			Program Objective D: Safety/Accident Prevention			Program Objective E: Utilize quality concepts Students will utilize quality concepts.			Program Objective F: Engage in life-long learning Students will engage in life-long learning.
SLO 1.1: Apply CAD principles Students will apply CAD principles.	SLO 1.2: Plan/execute production Students will plan and execute production.	SLO 1.3: Utilize control systems in automated manufacturing Students will utilize control systems in automated manufacturing.	SLO 1.4: Utilize computers and software for design Students will utilize computers and software for design in manufacturing.	SLO 2.1: Use scientific methods to solve problems Students will use scientific methods to solve problems.	SLO 2.2: Use management principles to solve problems Students will use management principles to solve problems.	SLO 2.3: Interact with team members Students will interact with team members to communicate and solve problems.	SLO 3.1: Exhibit good verbal communication skills Students will exhibit good verbal communication skills.	SLO 3.2: Demonstrate fluency in written communication Students will demonstrate fluency in written communication.	SLO 3.3: Deliver formal presentations using technology Students will deliver formal presentations using appropriate technology.	SLO 4.1: Apply safety principles around technical equipment Students will apply safety principles around technical equipment and processes.	SLO 4.2: Demonstrate knowledge of safety principles Students will demonstrate knowledge of safety principles in the planning process.	SLO 4.3: Safety principles in supervision & mgt. of others Students will demonstrate knowledge of safety principles in supervision and management of others.	SLO 5.1: Understand quality concerns in manufacturing Students will understand quality concerns in manufacturing.	SLO 5.2: Apply quality concepts Students will apply quality concepts.	SLO 5.3: Implement concepts of continuous improvement Students will implement concepts of continuous improvement.	SLO 6.1: Demonstrate a desire for life-long learning Students will demonstrate a desire for life-long learning.

Courses and Learning Activities																	
ECT 160 Electronic Fundamentals	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	
ECT 281 Intro to Robotics and Automation	I	I	I	I	I	I	I										
ECT 381 Advanced Robotics and Automation	I	I	I	I	I	I	I										
ECT 444 Programmable Logic Controllers and Control Systems	R	R	R	R	R	R	R							P	P	P	
MATH 123 Analytic Geometry and Trigonometry	I	I	I	I	I	I	I										
MET 103 Introduction to Technical Graphics with CAD	P	P	P	P	I	I	I				I	I	I				
MET 130 Introduction to Engineering and Technology	I	I	I	I	I	I	I	I	I	I				I	I	I	I
MET 203 Introduction to Solid Modeling	P	P	P	P	P	P	P										
MET 329 Fluid Power Technology	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
MET 430 Senior Seminar					R	R	R	R	R	R							R
MFG 225 Introduction to Materials, Processes, and Testing	I	I	I	I	I	I	I	I	I	I	P	P	P	I	I	I	
MFG 370 Fundamentals of Manufacturing	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

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Processes																	
MFG 371 Manufacturing Processes and Materials	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
MFG 376 Computer Numerical Control Systems	R	R	R	R	R	R	R	P	P	P	R	R	R	R	R	R	
SFTY 318 Industrial Accident Prevention I											I	I	I				
TMGT 351 Professional Internship	R	R	R	R	R	R	R	R	R	R	R	R	R	P	P	P	R
TMGT 374 Lean Manufacturing Systems	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
TMGT 471 Production Planning and Control I	P	P	P	P	R	R	R	R	R	R				I	I	I	
TMGT 478 Industrial Organization and Functions	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TMGT 491 Creativity and Ideation Techniques and Practices					R	R	R	R	R	R							R
TMGT 492 Industrial Supervision					R	R	R	R	R	R	P	P	P	R	R	R	R

Legend: I Introduced P Practiced R Reinforced

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AMM Curriculum Map

Courses and Activities Mapped to BS in Adv Manufacturing Mgt Outcome Set

Program Objective #1: Mastery of knowledge and tools				Program Objective #2: Effective Problem Solving			Program Objective #3: Effective communication			Program Objective #4: Safety/Accident Prevention			Program Objective #5: Utilize quality concepts Students will utilize quality concepts.			Program Objective #6: Engage in life-long learning Students will engage in life-long learning.
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TMGT 131 Introduction to Manufacturing Technology	I	I	I	I	I	I	I	I	I	I				I	I	I	I
MET 103 Introduction to Technical Graphics with CAD	P	P	P	P	I	I	I				I	I	I				
ECT 160 Electronic Fundamentals	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
MET 203 Introduction to Solid Modeling	P	P	P	P	P	P	P										
MFG 225 Introduction to Materials, Processes, and Testing	I	I	I	I	I	I	I	I	I	I	P	P	P	I	I	I	
ECT 280 Introduction to Automation	I	I	I	I	I	I	I										
ECT 281 Robotic Controls	I	I	I	I	I	I	I										
CS 151 Introduction to Computer Science	I	I	I	I	I	I	I										
MET 329 Fluid Power Technology	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
MFG 370 Fundamentals of Manufacturing Processes	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
MFG 371 Manufacturing Processes and Materials	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
TMGT 374 Lean Manufacturing Systems	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

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TMGT 351 Professional Internship	R	R	R	R	R	R	R	R	R	R	R	R	R	P	P	P	R
MFG 376 Computer Numerical Control Systems	R	R	R	R	R	R	R	P	P	P	R	R	R	R	R	R	
TMGT 430 Senior Seminar					R	R	R	R	R	R							R
ECT 444 Programmable Logic Controllers and Control Systems	R	R	R	R	R	R	R							P	P	P	
ECT 480 Applications of Robotic and Automation Systems	R	R	R	R	R	R	R							P	P	P	
TMGT 471 Production Planning and Control I	P	P	P	P	R	R	R	R	R	R				I	I	I	
TMGT 473 Quality Control of Industrial Products I					R	R	R	R	R	R				R	R	R	R
TMGT 478 Industrial Organization and Functions	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TMGT 492 Industrial Supervision					R	R	R	R	R	R	P	P	P	R	R	R	R
TMGT 497 Problem Solving Techniques: A Team Approach					R	R	R	R	R	R							R
HLTH 318 Industrial Accident Prevention I											I	I	I				

Legend: **I** Introduced **P** Practiced **R** Reinforced

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