

Departmental/Program Major Courses (58 credits)

Required Major Courses (44 credits)

- _____ (3) MET 10200 Production Specifications for Design Documentation
- _____ (3) MET 11100 Applied Statics
- _____ (1) MET 11300 Mechanics Applications
- _____ (3) MET 14300 Materials and Processes I
- _____ (3) MET 14400 Materials and Processes II
- _____ (1) MET 16200 Computational Analysis Tools for MET
- _____ (3) MET 23000 Fluid Power
- _____ (3) MET 24500 Manufacturing Systems
- _____ (3) MET 28400 Introduction to Industrial Controls
- _____ (3) MET 38200 Controls & Instrumentation for Automation
- _____ (3) MFET 34400 Automated Manufacturing Processes
- _____ (3) MFET 34800 Industrial Robots & Motion Control
- _____ (3) MFET 37400 Manufacturing Integration I
- _____ (3) MFET 44600 Advanced Manufacturing Operations
- _____ (3) MFET 48000 Project Planning for Integration
- _____ (3) MFET 48100 Integrated Manufacturing Systems

Major Selectives* - Select 6 of the following courses by category (14 credits)

- _____ (2) Computer Graphics Selective (CGT 11000 or CGT 16300)
- _____ (3) Manufacturing Graphics Selective
- _____ (3) Manufacturing Selective
- _____ (3) Statistics or Quality Selective (IT 34200 or STAT 30100)
- _____ (3) CNIT or CS Selective

Other Departmental /Program Course Requirements (55 credits) (include hyperlinks where appropriate)

- _____ (3) Humanities Foundational Outcome Selective (*satisfies Human Cultures Humanities for core*)
- _____ (3) Social Science Foundational Outcome Selective (*satisfies Human Culture Behavioral/Social Science for core*)
- _____ (3) TECH 12000 Design Thinking in Technology (*satisfies Information Literacy Selective for core*)
- _____ (na) TECH 12000 (*satisfies Science, Technology & Society Selective for core*)
- _____ (3) TECH 32000 Technology & the Organization
- _____ (3) TECH 33000 Technology & the Global Society
- _____ (4) Physics Selective (*satisfies Science Selective for core*)
- _____ (3) Science Selective
- _____ (3) CHM 11100 General Chemistry (*satisfies Science Selective for core*)
- _____ (3) Freshman composition (*satisfies Written Communication for core*)
- _____ (3) ENGL 42100 Technical Writing
- _____ (3) COM 11400 Fundamentals of Speech Communications (*satisfies Oral Communication for core*)
- _____ (3) ENGL/COM Selective
- _____ (3) MA 15800 Precalculus – Functions and Trigonometry (*satisfies Quantitative Reasoning Selective for core*)
- _____ (3) MA 22100 Calculus for Technology I
- _____ (3) MA 22200 Calculus for Technology II
- _____ (3) ECET 22400 Electronics Systems
- _____ (3) CNIT 17500 Visual Basic Programming
- _____ (3) IET 45100 Monetary Analysis

Electives (7 credits)

- | | | | |
|-----------------------------------|---|--------------------------|-----|
| (3) Technical
elective | (3) Humanities/Social
Science elective | (1) Free elective | () |
|-----------------------------------|---|--------------------------|-----|

University Core Requirements

Human Cultures Humanities	□	<hr/>	Science, Technology & Society Selective	□	<hr/>
Human Cultures Behavioral/Social Science	□	<hr/>	Written Communication	□	<hr/>
Information Literacy	□	<hr/>	Oral Communication	□	<hr/>
Science Selective	□	<hr/>	Quantitative Reasoning	□	<hr/>
Science Selective	□	<hr/>			<hr/>

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion

 Revised 5/2013 (effective Fall 2013)

Manufacturing Engineering Technology

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
3	English composition	NA	3	CHM 11100 Genl Chemistry	NA
3	MA 15800 Precalc: Func&Trig	NA	3	MA 22100 Calc for Tech I	MA 15800
3	MET 14400 Mats & Proc II	NA	3	COM 11400 Speech Com	NA
3	TECH 12000 Design Thinking	NA	3	Humanities Found. Outcome Sel	NA
1	MET 16200 Comp Tools	NA	3	MET 14300 Mats & Proc I	NA
13			15		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	MA 22200 Calc for Tech II	MA 22100	3	MET 10200 Prod. Specs	MET 16200, CGT 11000/16300
3	MET 11100 Applied Statics	MA 15800, MET 16200	3	MET 24500 Mfg Systems	MET 14300/14400, CGT 11000/16300
3	ECET 22400 Electronics Sys	MA 15800	3	MET 28400 Intro to Ind Controls	ECET 22400
3	Soc Sci Found Outcome Sel	NA	1	MET 11300 Mech. Apps	MET 11100
2	CGT selective	NA	4	PHYS selective	NA
1	Free elective	NA	3	CNIT 17500 Visual Basic Prog	NA
15			17		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	MET 23000 Fluid Power	MET 11100	3	Manufacturing Selective	
3	MFET 34400 Auto Mfg Proc	MET 24500	3	ENGL 42100 Tech Writing	Freshman comp
3	Mfg Graphics Selective	CGT 11000/16300	3	Stat/Qual Selective	
3	MFET 37400 Mfg Integration I	MET 28400, CNIT 17500	3	CNIT/CS Selective	
3	Science Selective		3	MET 38200 Contls & Inst for Auto	MET 28400
15			15		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	MFET 34800 Ind Robots&Mot	MET 28400	3	MFET 48100 Int Mfg Systems	MFET 48000
3	MFET 44600 Adv Mfg Oper.	MFET Junior+	3	Technical Elective	
3	MFET 48000 Proj Plan for Int	MFET 34800	3	Hum/Soc Sci Elective	
3	TECH 32000 Tech & the Org	TECH 12000	3	ENGL/COM Selective	
3	IET 45100 Monetary Analysis		3	TECH 33000 Tech & Global Soc	TECH 12000
15			15		

*Satisfies a University Core Requirement

**Satisfies a Non-departmental Major Course Requirement

120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

The student is ultimately responsible for knowing and completing all degree requirements.

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MFET SUPPLEMENTAL INFORMATION

All prerequisites must be met.

CGT SELECTIVE

CGT 11000 Technical Graphics Communications

CGT 16300 Graphical Communication and Spatial Analysis

MANUFACTURING GRAPHICS SELECTIVE

CGT 22600 Introduction to Constraint-Based Modeling

TECHNICAL SELECTIVE

CGT 32600 Graphics Standards for Product Definition (spring)

IT 34500 Automatic Identification and Data Capture

MET 33400 Advanced Fluid Power

CGT 42300 Product Data Management (spring)

IT 35100 Occupational Safety and Health

MET 34600 Advanced Materials in Manufacturing

CGT 42600 Industry Applications of Simulation and Visualization (fall)

IT 38100 Total Product Maintenance

MET 43200 Hydraulic Motion Control

FNR 30100 Wood Products/Wood Processes

IT 43400 Global Transportation and Logistics

MET 43600 Pneumatic Motion Control

IT 33000 Industrial Sales and Sales Management

IT 44200 Production Planning

MGMT 45500 Legal Background for Business I

IT 48300 Facility Design for Lean Manufacturing

OLS 28400 Leadership Principles

MET 30200 CAD in the Enterprise

CNIT or CS SELECTIVE

CNIT 10500 Introduction to C Programming

CS 15800 C Programming

CS 15900 Programming Applications for Engineers

STATISTICS OR QUALITY SELECTIVE

STAT 30100 Elementary Statistical Methods

IT 34200 Introduction to Statistical Quality

ENGLISH/COMMUNICATION SELECTIVE

COM 31500 Technical Communications

COM 32500 Interviewing Principles and Practices

ENGL 30400 Advanced Composition

COM 31800 Principles of Persuasion

COM 41500 Discussion of Technical Problems

ENGL 30900 Computer Aided Publishing

COM 32000 Small Group Communication

ENGL 20500 Introduction to Creative Writing

ENGL 41900 Multimedia Writing

PHYSICS SELECTIVE

PHYS 21800 General Physics

PHYS 22000 General Physics

PHYS 17200 Modern Mechanics

SCIENCE SELECTIVE

BIOL 11000 Fundamentals of Biology I

CHM 11200 General Chemistry II

PHYS 2210 General Physics

BIOL 20300 Human Anatomy and Physiology

PHYS 21900 General Physics II

PHYS 24100 Electricity and Optics

FRESHMAN COMPOSITION

ENGL 10600

MANUFACTURING SELECTIVE

A course from Technology, Engineering, Management or Science that has a connection to manufacturing process and materials, controls, systems, innovation or operations and that supports the academic interests of the students.

Processes and materials

AT 27200 Introduction to Composite Technology

AT 40800 Advanced Aircraft Manufacturing Processes

AT 30802 Aircraft Materials Processes

ECET 27000 Electronic Prototype Development

Controls

IT 34500 Automatic Identification and Data Capture

IT 44500 Problem-solving with Automatic Data Collection

Systems

CGT 32600 Graphics Standards for Product Definition

MET 30200 CAD in the Enterprise

CGT 42300 Product Data Management

MET 45100 Manufacturing Quality Systems

CGT 42600 Industrial Applications for Simulation

Innovation

OLS 48400 Leadership Strategies for Quality and Productivity

ENTR Courses in the Entrepreneurship Certificate program

Operations

IT 38100 Total Productive Maintenance

IT 44600 Six Sigma Quality

IT 38500 Industrial Ergonomics

IT 48300 Facility Design for Lean Manufacturing

IT 44200 Production Planning

MET 54600 Industrial Application of CIM Technology

HUMANITIES FOUNDATIONAL SELECTIVE: (6 credits) see <http://www.purdue.edu/provost/initiatives/curriculum/course.html>

BEHAVIORAL/SOCIAL SCIENCE FOUNDATIONAL SELECTIVE: see <http://www.purdue.edu/provost/initiatives/curriculum/course.html>

FREE ELECTIVE: Any non-remedial course