Manufacturing Engineering Technology   PIMFET-BS
Mechatronics Engineering Technolgy   MHET
Purdue Polytechnic New Albany   120-cr for graduation

PURDUE UNIVERSITY

Departmental/Program Major Courses (120 credits)

"D-" or better required in all major courses

Required Major Courses (62 credits)

- _____ (3) MET 10200 – Production Design and Specifications
- _____ (3) MET 11100 – Applied Statics
- _____ (1) MET 11300 -- Mechanics Applications
- _____ (3) Materials and Processes Selective
- _____ (3) MET 23000 -- Fluid Power
- _____ (3) MET 24500 – Manufacturing Systems
- _____ (3) MET 28400 – Introduction to Industrial Controls
- _____ (3) MET 38200 – Controls and Instrumentation for Automation
- _____ (3) MFET 34400 – Automated Manufacturing Processes
- _____ (3) MFET 37400 – Manufacturing Integration I
- _____ (3) Manufacturing Selective
- _____ (3) CNIT 10500 – Introduction to C Programming
- _____ (3) ENGT 18000—Engineering Technology Foundations
- _____ (1) ENGT 18100—Engineering Technology Applications

 MHET courses– (24 credits included in required major courses total)

- _____ (3) Mechatronics Selective
- _____ (3) Controls Selective
- _____ (3) ECET 17900—Introduction to Digital Systems
- _____ (3) ECET 27900 – Embedded Digital Systems
- _____ (3) ECET 32700 – Instrumentation and DAQ Design
- _____ (3) ECET 33700 – Continuous Systems Analysis and Design
- _____ (3) Capstone Selective I
- _____ (3) Capstone Selective II

Other Departmental/Program Course Requirements (54 credits)

- _____ (3) Freshman Speech Selective (choose from COM 11400, SCLA 10200) *(satisfies Oral Communication for core)*
- _____ (3) Communications Selective (Choose from COM 31500, COM 32000, COM 41500, EDPS 31500)
- _____ (3) Technical Writing Selective (choose from ENGL 42100, ENGL 42400)
- _____ (3) IET 33400 – Economic Analysis For Technology Systems
- _____ (3) MA 16010 - Applied Calculus I *(satisfies Quantitative Reasoning for core)*
- _____ (3) MA 16020 - Applied Calculus II
- _____ (3) ECET 22400 – Electronic Systems
- _____ (3) ECET 38001 --- Global/Professional Issues
- _____ (3) CHM 11100 – General Chemistry *(satisfies Science for core)*
- _____ (4) PHYS Selective (choose from PHYS 22000, PHYS 17200) *(satisfies Science for core)*
- _____ (3) TECH 12000 - Design Thinking in Technology *(satisfies Information Literacy* and *Science, Technology & Society for core)*
- _____ (3) Science Selective
- _____ (3) Freshman Composition Selective (choose from ENGL 10600 or 10800or SCLA 10100) *(satisfies Written Comm for core)*
- _____ (3) Human Cultures: Humanities Foundation Selective *(satisfies Human Cultures Humanities for core)*
- _____ (3) Human Cultures: Behavior/Social Sciences Foundation Selective (*satisfies Human Cultures: Behavioral Sciences for core)*
- _____ (3) Humanities/Social Science Elective
- _____ (2) Computer Graphics Selective (choose from CGT 11000, CGT 16300, or ENGT 10500)
- _____ (3) Statistics/Quality Selective (choose between STAT 30100, TLI 31600, or IT 34200)
- _____ (0) Professional Requirement
- _____ (0) Intercultural Requirement

Free Electives (4 credits)

- _____ (4) Free Electives

University Core Requirements

Human Cultures: Behavioral/Soc Sciences	☐	_____	*Science*	☐	_____
Human Cultures: Humanities	☐	_____	*Science*	☐	_____
Information Literacy	☐	_____	*Science, Technology & Society*	☐	_____
Oral Communication	☐	_____	*Written Communication*	☐	_____
Quantitative Reasoning	☐				

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

myPurduePlan is the knowledge source for specific requirements and completion.   **Updated 6/2/2020**

PURDUE UNIVERSITY

School of Engineering Technology-New Albany
Major: Mechatronics Engineering Technology (MHET)
MFET-BS Suggested Arrangement of Courses   Catalog Term: _____   PUID: _____

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year	CR	GR	Fulfilled by	Spring 1st Year	CR	GR	Fulfilled by
TECH 12000 - Design Thinking in Technology	3			ECET 17900 Intro to Digital Systems (Prereqs: ENGT 18000 +18100 and CNIT 10500)	3		
MA 16010 Applied Calculus I (P: ALEKS score of 75)	3			Free Elective (Recommended: ECET 17700)	3		
ENGT 18000 ENG Tech Foundations (P: ALEKS 60, SAT 570, ACT 24, or MA 15300)	3			MET 11100 Applied Statics (P: ENGT 18000)	3		
ENGT 18100 ENG Tech Applications (P or concurrent with ENGT 18000)	1			MA 16020 Applied Calculus II (P: MA 16010 with a grade of C- or better)	3		
CNIT 10500 Intro to C Programming	3			Freshman Speech Selective*	3		
Materials and Processes Selective	3						
TOTAL CREDIT HOURS	**16**			**TOTAL CREDIT HOURS**	**15**		

Fall 2nd Year	CR	GR	Fulfilled by	Spring 2nd Year	CR	GR	Fulfilled by
Computer Graphics Selective	2			MET 10200 Production Specifications (P: CGT Selective and ENGT 18000)	3		
ECET 22400 Electronic Systems (P: MA 16010)	3			ECET 27900 Embedded Digital Systems (P: ECET 17900)	3		
MET 11300 Mechanics Applications (P: MET 11100)	1			MET 23000 Fluid Power (P: (MET 11100 or PHYS 22000) and MA 16010)	3		
MET 24500 Manufacturing Systems (P: (MET 14300 or MET 14400) and CGT selective)	3			MET 28400 Intro to Industrial Controls (P: ECET 22400)	3		
Physics Selective*	4			Science Selective*	3		
Freshman Composition Selective*	3						
TOTAL CREDIT HOURS	**16**			**TOTAL CREDIT HOURS**	**15**		

Fall 3rd Year	CR	GR	Fulfilled by	Spring 3rd Year	CR	GR	Fulfilled by
ECET 33700 Analog Signal Processing (P: ECET 22400 + MA 16020)	3			ECET 32700 Instrument & DAQ Design (P: ECET 22400, MA 16010, PHYS Sel.)	3		
ECET 38001 Global Professional Issues in Engineering Technology	3			MFET 37400 Mfg Integration I (P: MET 28400)	3		
MFET 34400 Automated Mfg Processes (P: MET 24500)	3			Manufacturing Selective	3		
Technical Writing Selective +	3			Statistics or Quality Selective	3		
CHM 11100 General Chemistry*	3			Humanities Foundation Selective*+	3		
TOTAL CREDIT HOURS	**15**			**TOTAL CREDIT HOURS**	**15**		

Fall 4th Year	CR	GR	Fulfilled by	Spring 4th Year	CR	GR	Fulfilled by
Capstone Selective I	3			Capstone Selective II (P: Capstone Selective I)	3		
Communications Selective +	3			MET 38200 Controls/Instr for Automation (P: MET 28400)	3		
Controls Selective	3			Humanities/Social Science Elective	3		
Mechatronics Selective	3			Behavioral/Social Science Foundation Elective*	3		
IET 33400 Economic Analysis for Technology Systems	3			Free Elective	1		
TOTAL CREDIT HOURS	**15**			**TOTAL CREDIT HOURS**	**13**		

*Fulfills University core.

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
2. Students must earn a "D-" or better in all courses.
3. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.
5. Complete a Professional Requirement. ☐   Complete an Intercultural Requirement. ☐

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The student is ultimately responsible for knowing and completing all degree requirements.
myPurduePlan is knowledge source for specific requirements and completion.
** *Updated 6/2/2020*

Bold indicates courses offered at the New Albany campus   **See Student Affairs Administrator for course availability**

FRESHMAN COMPOSITION SELECTIVE+
ENGL 10600 First-Year Composition
ENGL 10800 Accelerated First-Year Composition

SCLA 10100 Transformative Text, Critical Thinking and Communication I: Antiquity to Modernity

FRESHMAN SPEECH SELECTIVE+
COM 11400   Fundamentals of Speech Communication

SCLA 10200 Transformative Texts, Critical Thinking And Communication II: Modern World

COMMUNICATIONS SELECTIVE+
COM 31500 Speech Communication Of Technical Information
COM 32000 Small Group Communication

COM 41500 Discussion Of Technical Problems
EDPS 31500 Collaborative Leadership: Interpersonal Skills

MATERIALS & PROCESSES SELECTIVE
MET 14300 Materials & Processes I

MET 14400 Materials & Processes II

TECHNICAL WRITING SELECTIVE+
ENGL 42100 Technical Writing

ENGL 42400 Writing For High Technology Industries

COMPUTER GRAPHICS SELECTIVE
CGT 11000 Technical Graphics Communications
CGT 16300 Graphical Communication and Spatial Analysis

ENGT 10500 Intro to Engineering Design

STATISTICS OR QUALITY SELECTIVE
STAT 30100 Elementary Statistical Methods

TLI 31600 Statistical Quality Control

PHYSICS SELECTIVE
PHYS 22000 General Physics

PHYS 17200 Modern Mechanics

SCIENCE SELECTIVE
BIOL 11000 Fundamentals of Biology I
BIOL 20300 Human Anatomy and Physiology
CHM 11200 General Chemistry II

CHM 11600 General Chemistry
PHYS 22100 General Physics
PHYS 24100 Electricity and Optics

CONTROLS SELECTIVE
ECET 27400 Wireless Communications
ECET 35901 Computer Based Data Acquisition Applications
ECET 36900 Applied Computer Vision Sensing & Automation
MET 33400 Advanced Fluid Power
MET 38200 Controls and Instrumentation for Automation

MET 43200 Hydraulic Motion Control Systems
MET 43600 Pneumatic Motion Control Systems
MET 48200 Mechatronics
MFET 29200 Projects in Automation, Robotics, and Mechatronics
MFET 39200 Advanced Projects In Automation, Robotics, and Mech

MECHATRONICS SELECTIVE
MET 43200 Hydraulic Motion Control Systems
MET 43600 Pneumatic Motion Control Systems
MET 48200 Mechatronics
MET 58100 Design for Mechatronics

MFET 34800 Industrial Robotics and Motion Control
MFET 39200 Advanced Projects in Automation, Robotics, and Mechatronics

MANUFACTURING SELECTIVE
AT 27200 Introduction To Composite Technology
AT 30802 Aircraft Materials Processes
AT 47200 Advanced Composite Technology
CGT 32600 Graphics Standards For Product Definition
CGT 42300 Product Data Management
CGT 42600 Industry Applications Of Simulation And Visualization
ECET 27000 Electronics Prototype Development/Construction

ECET 27400 Wireless Communications
ECET 36900 Applied Computer Vision Sensing & Automation
MET 30200 CAD In The Enterprise
MET 33400 Advanced Fluid Power
MET 34600 Advanced Materials In Manufacturing
MET 34900 (Stringed Instrument Design and Manufacture
MET 43200 Hydraulic Motion Control Systems

MET 43600 Pneumatic Motion Control Systems
MET 45100 Manufacturing Quality Systems
MFET 24800 Introduction to Robotics
MFET 29200 Projects in Automation, Robotics, and Mechatronics
MFET 34800 Industrial Robotics and Motion Control
MFET 39200 Advanced Projects In Automation, Robotics, and MECH

MFET 49900 (Tech, Innovation & Culture in Bavaria (Study Abroad)
MGMT 45500 Legal Background For Business I
OLS 28400 Leadership Principles
TLI 33620 Total Productive Maintenance
TLI 44275 Global Transportation And Logistics Management

CAPSTONE SELECTIVE I
ENGT 48000 ET Capstone I
ECET 43000 Electrical and Electronic Product and Program Management
ECET 43100 International Capstone Project Planning and Design

ENGT 40500 Entrepreneurial Capstone I
MET 40100 Capstone Projects I
MFET 48000 Project Planning For Integration
ENGT 40500 Entrepreneurial Capstone I

CAPSTONE SELECTIVE II
ENGT 48100 ET Capstone II
ECET 46000 Project Design and Development
ECET 46100 International Capstone Project Execution
ENGT 40600 Entrepreneurial Capstone II
MET 40200 Capstone Project II

MFET 48100 Integration of Manufacturing Systems
ENGT 40600 Entrepreneurial Capstone II

HUMANITIES FOUNDATION SELECTIVE: see http://www.purdue.edu/provost/initiatives/curriculum/course.html

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

HUMANITIES/SOCIAL SCIENCE ELECTIVE: any 2xxxx course or higher in PSY, SOC, HIST, ECON, POL, ENGL Lit, PHIL, REL, ANTH, a foreign language, AD 22600, AD 22700, AD 25100, AD 25500, AD 30701, AD 31100, AD 31200, MUS 25000, MUS 37400, MUS 37600, MUS 37800, MUS 38100, MUS 38200

FREE ELECTIVE: Any non-remedial course

+ denotes optional course for Cornerstone Certificate.