

**Departmental/Program Major Courses (120 credits)**

**Required Major Courses (59 credits)**

- \_\_\_\_\_ (3) MET 10200 – Production Specifications
- \_\_\_\_\_ (3) MET 11100 – Applied Statics
- \_\_\_\_\_ (1) MET 11300 -- Mechanics Applications
- \_\_\_\_\_ (3) MET 14400 – Materials and Processes II (MET Gateway Course)
- \_\_\_\_\_ (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
- \_\_\_\_\_ (3) Manufacturing Selective
- \_\_\_\_\_ (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 27900 – Embedded Digital Systems
- \_\_\_\_\_ (3) ECET 32700 – Instrumentation and DAQ Design
- \_\_\_\_\_ (3) ECET 33700 – Analog Signal Processing
- \_\_\_\_\_ (3) ECET 43000 – Electronics Product and Program Management
- \_\_\_\_\_ (3) ECET 46000 – Project Design and Development
- \_\_\_\_\_ (3) CNIT 10500 – Introduction to C Programming

**Other Departmental/Program Course Requirements (57 credits)**

- \_\_\_\_\_ (3) COM 11400 - Fundamentals of Speech Communication (*satisfies Oral Communication for core*)
- \_\_\_\_\_ (3) COM 32000 – Small Group Discussion
- \_\_\_\_\_ (3) ENGL 42100 – Technical Writing
- \_\_\_\_\_ (3) IET 45100 or TLI 33400 – engineering economics
- \_\_\_\_\_ (3) MA 16010 - Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- \_\_\_\_\_ (3) MA 16020 - Applied Calculus II
- \_\_\_\_\_ (3) ECET 22400 – Electronics Systems
- \_\_\_\_\_ (3) ECET 38001 --- Global/Professional Issues
- \_\_\_\_\_ (3) CHM 11100 – General Chemistry
- \_\_\_\_\_ (4) PHYS Selective (choose from PHYS 21800, 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) Freshmen Composition Selective (*satisfies Written Communication 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) CGT Selective (choose from CGT 11000, CGT 16300, or IT 10500)
- \_\_\_\_\_ (3) Statistics/Quality Selective (choose between STAT 30100 or IT 34200)
- \_\_\_\_\_ (3) Technical Elective

**(4) Free Electives (4 Credits)**

**University Core Requirements**

Human Cultures: Behavioral/Social Sciences	<input type="checkbox"/>	_____	Science	<input type="checkbox"/>	_____
Human Cultures: Humanities	<input type="checkbox"/>	_____	Science	<input type="checkbox"/>	_____
Information Literacy	<input type="checkbox"/>	_____	Science, Technology & Society	<input type="checkbox"/>	_____
Oral Communication	<input type="checkbox"/>	_____	Written Communication	<input type="checkbox"/>	_____
Quantitative Reasoning	<input type="checkbox"/>	_____			

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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 4/1/2016

Fall 1 <sup>st</sup> Year	CR	GR	Sem	Fulfilled by	Spring 1 <sup>st</sup> Year	CR	GR	Sem	Fulfilled by
TECH 12000 Design Thinking in Tech.*	3				Freshman Composition Selective* (ENG-W131)	3			
MA 16010 Applied Calculus I * (Prereq: ALEKS score of 75)	3				MA 16020 Applied Calculus II (Prereq: MA 16010 with a grade of C- or better)	3			
ECET 22400 Electronics Systems (Prereq: MA 15300 or higher math course)	3				MET 11100 Applied Statics (Prereqs: ENGT 18000)	3			
ENGT 18000 ENG Tech Foundations	3				Free Elective (ECET 17900 is recommended)	3			
ENGT 18100 ENG Tech Applications	1				MET 14400 Materials and Processes II	3			
CNIT 10500 Intro to C Programming	3								
<b>TOTAL CREDIT HOURS</b>	<b>16</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

Fall 2 <sup>nd</sup> Year	CR	GR	Sem	Fulfilled by	Spring 2 <sup>nd</sup> Year	CR	GR	Sem	Fulfilled by
Humanities Foundation Selective*	3				MET 10200 Production Specifications (Prereqs: CGT Selective and ENGT 18000)	3			
COM 11400 Fund of Speech Communication* (SPCH-S121)	3				ECET 27900 Embedded Digital Systems (Prereq: EET 17900)	3			
MET 11300 Mechanics Applications (Prereq: MET 11100)	1				MET 28400 Intro to Industrial Controls (Prereq: ECET 22400)	3			
MET 24500 Manufacturing Systems (Prereqs: (MET 14300 or MET 14400) and Computer graphics selective)	3				Behavioral/Social Science Foundation Elective*	3			
Computer Graphics Selective (CGT 110)	2				Science Selective*	3			
Physics Selective* (PHYS-P201/P221)	4								
<b>TOTAL CREDIT HOURS</b>	<b>16</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

Fall 3 <sup>rd</sup> Year	CR	GR	Sem	Fulfilled by	Spring 3 <sup>rd</sup> Year	CR	GR	Sem	Fulfilled by
Manufacturing Selective	3				MFET 37400 Mfg Integration I (Prereq: MET 28400)	3			
MFET 34400 Automated Mfg Processes (Prereq: MET 24500)	3				ECET 38001 Global Professional Issues in Engineering Technology	3			
ENGL 42100 Technical Writing (Prereq: ENGL 10600) (ENG-W321)	3				ECET 32700 Instrument & DAQ Design (Prereqs: ECET 22400, MA 16010, PHYS Sel.)	3			
ECET 33700 Analog Signal Processing (Prereq: ECET 22400 + MA 16020)	3				MET 23000 Fluid Power (Prereqs: (MET 11100 or PHYS 22000) and MA 16010)	3			
CHM 11100 General Chemistry* (CHEM-C101/C121)	3				Humanities/Social Science Elective (2XXXX)	3			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

Fall 4 <sup>th</sup> Year	CR	GR	Sem	Fulfilled by	Spring 4 <sup>th</sup> Year	CR	GR	Sem	Fulfilled by
ECET 43000 Electronic Product and Program Management	3				ECET 46000 Project Design and Development (Prereq: ECET 43000)	3			
COM 32000 Small Group Communication (SPCH-C321,C380, S229)	3				MET 38200 Controls/Instr for Automation (Prereq: MET 28400)	3			
Controls Selective	3				Free Elective	1			
Mechatronics Selective	3				Technical Elective	3			
IET 45100 or TLI 33400 engineering economics	3				Statistics or Quality Selective	3			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>13</b>			

Refer to the 2016 MFET Mechatronics Engineering Technology supplemental information form for options for elective, selectives, and pre-requisites.

\*Fulfills University core.

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

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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 4/1/2016

**MFET PROGRAM SUPPLEMENTAL INFORMATION**  
**Mechatronics Engineering Technology Major (MHET)**  
**All prerequisites must be met.**

**Bold indicates courses offered at the Kokomo Campus.**  
**See Student Services Coordinator for course availability.**

**FRESHMAN COMPOSITION SELECTIVE**

ENGL 10600 First-Year Composition  
ENGL 10800 Accelerated First-Year Composition  
**ENG-W131**

**COMPUTER GRAPHICS SELECTIVE**

**CGT 11000 Technical Graphics Communications**  
CGT 16300 Graphical Communication and Spatial Analysis  
IT 10500 Intro to Engineering Design

**TECHNICAL ELECTIVE**

All Polytechnic courses at the 3xxxx level or above that are not required for the major plus FNR 30100, MGMT 45500, and **OLS 28400**.

**STATISTICS OR QUALITY SELECTIVE**

**STAT 30100 Elementary Statistical Methods**  
**IT 34200 Introduction to Statistical Quality**

**PHYSICS SELECTIVE**

PHYS 21800 General Physics  
PHYS 22000 General Physics  
PHYS 17200 Modern Mechanics  
**PHYS-P201 or P221**

**SCIENCE SELECTIVE**

BIOL 11000 Fundamentals of Biology I  
BIOL 20300 Human Anatomy and Physiology  
CHM 11200 General Chemistry II  
PHYS 21900 General Physics II  
PHYS 2210 General Physics  
PHYS 24100 Electricity and Optics

**ANAT-A215**  
**BIOL-L100**  
**BIOL-L105**  
**CHEM-C102/C122**  
**PHYS-P202/P222**

**MECHATRONICS SELECTIVE**

MET 48200 Mechatronics  
MET 58100 Design of Mechatronics Systems

**CONTROLS SELECTIVE**

**IT 34500 Automatic Identification and Data Capture (TLI 31300)**  
IT 44500 Problem-Solving with Automatic Data Collection

MET 33400 Advanced Fluid Power  
MET 43200 Hydraulic Motion Control Systems  
MET 43600 Pneumatic Motion Control Systems  
MFET 29200 Projects in Automation, Robotics and Mechatronics  
MFET 39200 Advanced Projects in Automation, Robotics and Mechatronics

**MANUFACTURING SELECTIVE**

AT 27200 Intro to Composite Technology  
AT 30800 Aircraft Materials Processes  
AT 40800 Advanced Aircraft Manufacturing Processes  
AT 47200 Advanced Composite Technology  
CGT 32600 Graphics Standards for Product Definition  
CGT 42300 Product Data Management  
CGT 42600 Industrial Applications for Simulation

**IT 21400 Introduction to Lean Manufacturing (TLI 23500)**

IT 38100 Total Productive Maintenance

**IT 38500 Industrial Ergonomics**

IT 43400 Global Transportation and Logistics Management

**IT 44200 Production Planning**

**IT 44600 Six Sigma Quality**

**IT 48300 Facility Design for Lean Manufacturing**

**MET 30200 CAD in the Enterprise**

MET 45100 Manufacturing Quality Systems  
MFET 29200 Projects In Automation, Robotics And Mechatronics  
MFET 34200 Advanced Manufacturing Processes and Practices  
MFET 34800 Industrial Robotics and Motion Control  
MFET 39200 Advanced Projects In Automation, Robotics And Mechatronics  
MFET 44600 Advanced Manufacturing Operations

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

**ENG-L204, HIST-H105, HIIST-H106, HIST-H113, HIST-H114, PHIL-P100, PHIL-P140, FINA-A101, FINA-A102, MUS-M174, SPAN S100-400, FREN-F100-400, GER-G100-400**

**BEHAVIORAL/SOCIAL SCIENCE FOUNDATION SELECTIVE:** see

<http://www.purdue.edu/provost/initiatives/curriculum/course.html>

**ANTH-A104, ECON-E201, ECON-E202, POLS-Y103, PSY-P103, SOC-S100, SOC-S101**

**HUMANITIES/SOCIAL SCIENCE ELECTIVE:** any 2xxxx course or higher in PSY, SOC, HIS, ECON, POL, PHIL, REL, ANTH, a foreign language, plus AD 22600, AD 22700, AD 25100, AD 25500, AD 30701, AD 31100, AD 31200, MUS 25000, MUS 35500, MUS 37400, MUS 37600, MUS 37800, MUS 38100, MUS 38200

**FREE ELECTIVE:** Any non-remedial course