

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

**Required Major Courses (59 credits)**

- \_\_\_\_\_ (3) MET 10200 – Production Specifications
- \_\_\_\_\_ (3) MET 11100 – Applied Statics
- \_\_\_\_\_ (3) MET 14300 – Materials and Processes I
- \_\_\_\_\_ (3) MET 14400 – Materials and Processes II (MET Gateway Course)
- \_\_\_\_\_ (4) MET 21100 – Applied Strength of Materials
- \_\_\_\_\_ (3) MET 21300 Dynamics
- \_\_\_\_\_ (3) MET 22000 Heat/Power
- \_\_\_\_\_ (3) MET 23000 -- Fluid Power
- \_\_\_\_\_ (3) MET 24500 – Manufacturing Systems
- \_\_\_\_\_ (3) MET 28400 – Introduction to Industrial Controls
- \_\_\_\_\_ (3) MET 31300 – Fluid Mechanics
- \_\_\_\_\_ (3) MET 32000 – Thermodynamics
- \_\_\_\_\_ (3) MET 34600 (Advanced Materials in Manufacturing)
- \_\_\_\_\_ (3) ENGT 18000—Engineering Technology Foundations
- \_\_\_\_\_ (1) ENGT 18100—Engineering Technology Applications

**MET Selectives – (15 credits, included in required major total)**

- \_\_\_\_\_ (3) MET Elective or approved Focus Area elective
- \_\_\_\_\_ (3) Mechanics Selective
- \_\_\_\_\_ (3) MET Capstone Selective I
- \_\_\_\_\_ (3) MET Capstone Selective II
- \_\_\_\_\_ (3) Technical Selective or approved Focus Area Selective

**Other Departmental/Program Course Requirements (61 credits)**

- \_\_\_\_\_ (3) COM 11400 (SPCH-S121\*IU) - Fundamentals of Speech Communication (*satisfies Oral Communication for core*)
- \_\_\_\_\_ (3) COM 32000 (SPCH-S229\*IU) - Small Group Discussion
- \_\_\_\_\_ (3) ENGL 42100 (ENG-W234\*IU) – 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) CHM 11100 (CHEM-C101/C121\*IU) – General Chemistry
- \_\_\_\_\_ (4) PHYS 22000 (PHYS-P201\*IU) - General Physics (*satisfies Science for core*)
- \_\_\_\_\_ (4) PHYS 22100 (PHYS-P202\*IU) - General Physics II (*satisfies Science for core*)
- \_\_\_\_\_ (3) STAT 30100 (MATH-K300\*IU) – Statistical Methods
- \_\_\_\_\_ (3) TECH 12000 - Design Thinking in Technology (*satisfies Information Literacy and Science, Technology & Society for core*)
- \_\_\_\_\_ (3) Freshman Composition Selective (ENG-W131\*IU) (*satisfies Written Communication for core*)
- \_\_\_\_\_ (3) Economics/Finance Selective (ECON-E101, ECON-E103, or BUS-F260\*IU)
- \_\_\_\_\_ (3) General Education Human Cultures: Humanities Selective (*satisfies Human Cultures Humanities for core*)
- \_\_\_\_\_ (3) General Education Human Cultures: Behavior/Social Sciences (*satisfies Human Cultures: Behavioral Sciences for core*)
- \_\_\_\_\_ (2) Computer Graphics Technology Selective (choose from CGT 11000, CGT 16300, IT 10500)
- \_\_\_\_\_ (3) Programming Selective (choose from CNIT 10500, CNIT 15501, CNIT 17500, CS 15800 or CS 15900, MET 16400)
- \_\_\_\_\_ (3) Global/Professional Selective
- \_\_\_\_\_ (3) TECH/MGMT Selective
- \_\_\_\_\_ (0) Beyond the Classroom Requirement

**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"/>	_____			

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

myPurduePlan is the knowledge source for specific requirements and completion.

Fall 1 <sup>st</sup> Year	CR	GR	Sem	Fulfilled by	Spring 1 <sup>st</sup> Year	CR	GR	Sem	Fulfilled by
<b>MA 16010</b> Applied Calculus I (Prereq: ALEKS score 75)	3				<b>MET 10200</b> Production Specifications (Pre-reqs: CGT selective and ENGT 18000)	3			
Computer Graphics Technology Selective (CGT 11000, CGT 16300, or IT 10500)	2				<b>MET 11100</b> Applied Statics (Prereqs: ENGT 18000)	3			
<b>MET 14300</b> Materials and Processes I	3				<b>MET 14400</b> Materials and Processes II	3			
<b>ENGT 18000</b> ENG Tech Foundations	3				<b>MA 16020</b> Applied Calculus II (Pre-req: MA 16010 with grade of C- or higher)	3			
<b>ENGT 18100</b> ENG Tech Applications	1				Freshman Composition Selective ( <b>ENG-W131</b> *IU)	3			
<b>TECH 12000</b> Design Thinking in Tech.*	3								
<b>TOTAL CREDIT HOURS</b>	<b>15</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
<b>MET 21100</b> Strength of Materials (Pre-reqs: MET 11100 and MA 16010)	4				<b>MET 21300</b> Dynamics (Pre-reqs: MA 16020 and MET 11100)	3			
<b>MET 23000</b> Fluid Power (Pre-reqs: MET 11100 and MA 16010)	3				<b>MET 24500</b> Manufacturing Systems (Pre-reqs: (MET 14300 or MET 14400)	3			
Programming Selective ( <b>MET 16400</b> )	3				<b>ECET 22400</b> Electronics Systems (Pre-req: MA 16010)	3			
PHYS 22000 ( <b>PHYS-P201</b> *IU) General Physics I	4				PHYS 22100 ( <b>PHYS-P202</b> *IU) General Physics II* (Prereq: PHYS-P201)	4			
					COM 11400 ( <b>SPCH-S121</b> *IU) Fund of Speech	3			
<b>TOTAL CREDIT HOURS</b>	<b>14</b>				<b>TOTAL CREDIT HOURS</b>	<b>16</b>			

Fall 3 <sup>rd</sup> Year	CR	GR	Sem	Fulfilled by	Spring 3 <sup>rd</sup> Year	CR	GR	Sem	Fulfilled by
<b>MET 28400</b> Intro to Industrial Controls (Pre-req: ECET 22400)	3				<b>MET 22000</b> Heat Power (Pre-reqs: PHYS-P201, MA 16010 & ENGT 18000)	3			
<b>Mechanics Selective</b>	3				<b>MET 31300</b> Fluid Mechanics (Pre-reqs: MA 16020, MET 22000 and MET 23000)	3			
<b>IET 45100</b> or TLI 33400 engineering economics	3				<b>MET Elective</b> or approved Focus Area elective (MET 30200 Recommended)	3			
STAT 30100 ( <b>MATH-K300</b> *IU) Statistics	3				Economics/Finance Selective	3			
CHM 11100 ( <b>CHEM-C101/C121</b> *IU) General Chemistry	3				Humanities Selective	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
<b>MET Capstone Selective I</b>	3				<b>MET Capstone Selective II</b> (Pre-reqs: Capstone Selective I)	3			
<b>MET 32000</b> Thermodynamics (Pre-reqs: MA 16010 and MET 22000)	3				<b>MET 34600</b> Advanced Materials in Mfg (Pre-reqs: MET 21100, MET 24500 and CHEM 101)	3			
Global/Professional Selective	3				Technical Sel/Approved Focus Area elective	3			
TECH/MGMT Selective	3				Behavioral Social Science Selective	3			
ENGL 42100 ( <b>ENG-W234</b> *IU) Technical Writing (Pre-req: ENG-W131)	3				COM 32000 ( <b>SPCH-S229</b> *IU) Small Group Discussion	3			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

Refer to the 2016 MET supplemental Instruction form for optional courses to complete selectives and pre-requisites.

- 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 unless otherwise noted.
- 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 University location conferring the degree.
- Complete a Beyond the Classroom Requirement.

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myPurduePlan is knowledge source for specific requirements and completion.**

\*\*\*\*\* Updated 4/1/2016

## 2016 MET SUPPLEMENTAL INFORMATION

All prerequisites must be met.

**Bold indicates courses offered at New Albany Campus.**

**\*Indicates IU Southeast course for New Albany Campus only (See Student Services Coordinator for availability.)**

### CGT SELECTIVE

CGT 11000 Technical Graphics Communications

CGT 16300 Graphical Communication and Spatial Analysis

IT 10500 Intro to Engineering Design

### FRESHMAN COMPOSITION

ENGL 10600 (**\*ENG-W131**)

### ECONOMICS/FINANCE SELECTIVE

CSR 3420 Personal Finance (**\*BUS-F260**)

ECON 2100 Principles of Economics (**\*ECON-E101** or **E103**)

ECON 25100 Microeconomics

ECON 25200 Macroeconomics

ENTR 20000

### TECHNICAL SELECTIVE

A 300-400 level ENGR, ECET, MFET, CS or elective IET course.

A CHM, MA, PHYS or STAT course beyond what is required.

**\*MATH-M303, M311, M313**

Any MET elective course

ANSC 230 Physiology of Domestic Animals

AT 27200 Intro to Composite Technology

AT 27800 Nondestructive Testing

AT 47800 Advanced Nondestructive Testing

BCHM 22100 Analytical Biochemistry

BCM 23000 Mechanical/Electrical Systems

BCM 31500 Mechanical Construction Estimating

BCM 38000 Concrete Construction

BIOL 20300 Human Anatomy and Physiology (**\*ANAT-A215**)

BIOL 22100 Introduction to Microbiology

CGT 226 Intro to Constraint Based Modeling

CHM 11200/CHM 11600 General Chemistry II (**\*CHEM-C102**)

CHM 22300 Principles of Biochemistry

CHM 48100 Environmental Chemistry

CE 35000 Environmental Engineering

CE 35500 Engineering Environmental Sustainability

ENTM 21800 Introduction to Forensic Sciences

FNR 30100 Wood Products/Wood Processes

FNR 31100 Wood Structure, Identification and Properties

FNR 41800 Properties of Wood Related to Manufacturing

FNR 42500 Secondary Wood Products Manufacturing

FS 22200 Safety of Foods

HSCI 31200 Radiation Science Fundamentals

IE 47700 Work Methods and Measurement

IE 57700 Human Factors in Engineering

IT 33000 Industrial Sales and Sales Management

**IT 34500 Automatic Identification and Data Capture**

**IT 35100 Occupational Safety and Health**

**IT 43400 Global Transportation and Logistics Management**

MA 26100 Multivariate Calculus

### MANAGEMENT SELECTIVE

AFT 35100 AF Leadership Studies I

AFT 36100 AF Leadership Studies II

**ECET 38001 Global Professional Issues in ET**

EDPS 31500 Leadership: Listening

EDPS 31600 Leadership: Cross-Cultural

EDPS 31700 Leadership: Mentoring

ENTR 31000 Marketing Management for New Ventures

MGMT 20000 Accounting Principles (**\*BUS-A201**)

MGMT 20010 Business Accounting (**\*BUS-A202**)

MGMT 45500 Legal Background for Business (**\*BUS-L201**)

MSL 20200 Leadership & Teamwork

MSL 30100 Leadership & Problem Solving

MSL 40100 Leadership & Management

NS 21400 Fundamentals of Leadership

NS 41300 Naval Leadership Management & Ethics

**OLS 25200 Human Relations in Organizations**

**OLS 27400 Applied Leadership**

**OLS 28400 Leadership Principles**

**OLS 36400 Tech & the Organization**

**OLS 38600 Leadership for Org Change & Innov**

PSY 27200 Intro to Industrial-Organizational Psych

**TLI 11200 Foundations of Organizational Leadership**

**TLI 15200 Business Principles for Organizational Leadership**

**TLI 21300 Project Management**

**TLI 25300 Principles of Technology Strategy**

**TLI 25400 Leading Change in Technology Organizations**

Approved Study Abroad Course

### MECHANICS SELECTIVE

MET 31100 Experimental Strength of Materials

MET 31400 Applications of Machine Elements

MET 31500 Applied Kinematics and Dynamics

MET 31601 Mechanics of Machine Design

## PROGRAMMING SELECTIVE

CNIT 10500 Introduction to C Programming (\***CSCI-C105**)  
CNIT 15500 Introduction to Object-Oriented Programming  
CNIT 17500 Visual Programming (\***CSCI-A201**)

CS 15800 C Programming  
CS 15900 Programming Applications for Engineers  
**MET 16400 Computing in Engineering Technology**

## MET ELECTIVE (6 credit hours)

### MET 30200 CAD in the Enterprise (Spring Only)

### MET 31100 Experimental Strength of Materials

MET 31700 Machine Diagnostics  
MET 33400 Advanced Fluid Power  
MET 34900 Stringed Instrument Design and Manufacture  
MET 38200 Controls and Instrumentation for Automation

### MET 40000 Mechanical Design

### MET 40100 Capstone Projects I (Fall only)

### MET 40200 Capstone Projects II (Spring Only)

### MET 41100 Introduction to the Finite Element Method

MET 42100 Air Conditioning and Refrigeration

### MET 42600 Internal Combustion Engines

MET 43200 Hydraulic Motion Control Systems  
MET 43600 Pneumatic Motion Control Systems

### MET 44301 Joining Processes

### MET 45100 Manufacturing Quality Control

MET 48600 Fundamentals of Motorsports  
MET 49000 Green Manufacturing and Sustainability

## MET CAPSTONE SELECTIVE (3 credit hours)

MET 33400 Advanced Fluid Power

### MET 40000 Mechanical Design

### MET 40100 Capstone Projects I (Fall only)

### MET 40200 Capstone Projects II (Spring Only)

MET 42100 Air Conditional and Refrigeration  
MET 43200 Hydraulic Motion Control Systems  
MET 43600 Pneumatic Motion Control Systems

## GLOBAL/PROFESSIONAL SELECTIVE

ANTH 20500 Human Cultural Diversity  
ANTH 34100 Culture & Personality  
ARAB 28000 Arabic Culture  
CHNS 28000 Selected Topics on China  
CHNS 28500 Chinese Calligraphy  
COM 22400 Communicating in the Global Workplace  
COM 30300 Intercultural Communication  
**ECET 38001 Global Professional Issues In ET**  
EDPS 31600 Leadership: Cross-Cultural  
FLL 23500 East Asian Literature in Translation  
FLL 23900 Contemporary Foreign Women Writers in Translation  
FNR 48800 Global Environmental issues  
FR 33000 French Cinema  
GER 23000 German Folklore & Fairy Tales  
GER 23000 German Literature in Translation  
GER 33000 German Cinema  
HIST 30000 Eve of Destruction  
HIST 33300 Science & Technology in Western Civilization I  
HIST 33400 Science & Technology in Western Civilization II  
HIST 35000 Science & Technology in Twentieth Century World

HIST 36000 Gender in Middle East History  
JPNS 28000 Introduction to Modern Japanese Civilization  
MGMT 45500 Legal Background for Business (\***BUS-L201**)  
MSL 30200 Leadership & Ethics  
MUS 37800 World Music  
NS 41300 Naval Leadership Management & Ethics  
**OLS 45600 Tech & the Global Society**  
PHIL 11400 ENG Global Moral Issues for Engineers  
PHIL 20600 Philosophy of Religion  
PHIL 29000 Environmental Ethics (\***PHIL-P237**)  
PHIL 33000 Religions of the East  
PHIL 33100 Religions of the West  
POL 23100 Introductions to United States Foreign Policy  
PSY 33500 Stereotyping & Prejudice  
PTGS 33000 Brazilian, Portuguese & African Cinema  
SOC 31000 Racial & Ethnic Diversity (\***SOC-S300**)  
SPAN 23500 Spanish American Literature in Translation  
SPAN 33000 Spanish & Latin American Cinema  
**TECH 33000 Tech and the Global Society**  
Approved Study Abroad Course

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

\*ENG-L104, FINA-F100, FINA-H100, HIST-H105, HIST-H106, MUS-M174, EALC-J101

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

\*POLS-Y103, PSY-P101, SOC-S163