

Departmental/Program Major Courses (120 credits)

Required Major Courses (44 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)
- _____ (1) MET 16200 – Computational Analysis Tools
- _____ (4) MET 21100 – Applied Strength of Materials
- _____ (3) MET 21300 Dynamics
- _____ (3) MET 21400 – Machine Elements
- _____ (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)

MET Selectives – (12 credits)

- _____ (6) MET Elective or approved Focus Area elective
- _____ (3) MET Capstone Selective
- _____ (3) Technical Selective or approved Focus Area Selective

Other Departmental/Program Course Requirements (64 credits)

- _____ (3) COM 11400 (*SPCH-S 121 – Public Speaking) - Fundamentals of Speech Communication (*satisfies Oral Communication for core*)
- _____ (3) COM 32000 - Small Group Discussion or *SPCH-S 229 Dis & Group Methods
- _____ (3) ENGL 42100 – Technical Writing
- _____ (3) IET 45100 or TLI 33400 – Engineering Economics or *IT 45000 Production Cost Analysis
- _____ (3) MA 15800 – Precalculus – Functions and Trigonometry
- _____ (3) MA 16010 - Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- _____ (3) MA 16021 - Applied Calculus II and Differential Equations
- _____ (3) ECET 22400 – Electronic Systems
- _____ (3) CHM 11100 – (*CHEM-C 101 & 121) General Chemistry
- _____ (4) PHYS 22000 - (*PHYS-P 201 OR 221) General Physics (*satisfies Science for core*)
- _____ (4) PHYS 22100 - (*PHYS-P 202 OR 222) General Physics II (*satisfies Science for core*)
- _____ (3) STAT 30100 – (*Math-K 310) Statistical Methods
- _____ (3) TECH 12000 - Design Thinking in Technology (*satisfies Information Literacy and Science, Technology & Society for core*)
- _____ (3) English Composition Selective ENGL 10600 or ENGL 10800 (*ENG-W 131) (*satisfies Written Communication for core*)
- _____ (3) Economics/Finance Selective - ECON 21000, ECON 25100, ECON 25200, CSR 34200, MGMT 45500 (*ECON-E 103 or ECON-E 104)
- _____ (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) CGT Selective *CGT 11000 or CGT 16300
- _____ (3) Programming Selective – choose from CNIT 10500, *CNIT 17500, CS 15800 or CS 15900
- _____ (3) Global/Professional Selective
- _____ (3) TECH/MGMT Selective

*** Denotes South Bend Location Course Offering**

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 st Year	CR	GR	Sem	Fulfilled by	Spring 1 st Year	CR	GR	Sem	Fulfilled by
CGT Selective - CGT 11000	3				MA 16010 Applied Calculus I (Prereq: MA 15800 with grade of C- or better or ALEKS score 75)	3			
Freshman Composition Selective – ENG-W 131 (IUSB)	3				MET 11100 Applied Statics (Prereqs: MA 15800 and MET 16200)	3			
MA 15800 Precalculus (Prereq ALEKS score 60)	3				MET 14300 Materials and Processes I	3			
MET 14400 Materials and Processes II (MET Gateway Course)	3				MET 10200 Production Specifications (Prereqs: (CGT 110 or CGT 163, and MET 16200)	3			
MET 16200 Computational Anly Tools	1				PHYS 22000 General Physics I	5			
TECH 12000 Design Thinking in Tech.*	3				PHYS-P 221 or 201 (IUSB)				
TOTAL CREDIT HOURS	16				TOTAL CREDIT HOURS	17			

Fall 2 nd Year	CR	GR	Sem	Fulfilled by	Spring 2 nd Year	CR	GR	Sem	Fulfilled by
ECET 22400 Electronic Systems (Prereq: MA 153 or MA 221)	3				MET 21400 Machine Elements (Prereqs: MET 21100 and MET 21300)	3			
MA 16021 Applied Calculus/Diff Eqns. (Prereq: MA 16010 with grade of C- or higher)	3				MET 23000 Fluid Power (Prereqs: MET 11100 and MA 16010)	3			
MET 21100 Strength of Materials (Prereqs: MET 11100 and MA 16010)	4				MET 28400 Intro to Industrial Controls (Prereq: ECET 22400)	3			
MET 21300 Dynamics (Prereqs: MA 16020 and MET 11100)	3				COM 11400 Fundamental of Speech Communication* - SPCH-S 121 (IUSB)	3			
MET 24500 Manufacturing Systems (Prereqs: MET 14300 or MET 14400 and CGT 11000)	3				PHYS 22100 General Physics II* (Prereq: PHYS 21200) – PHYS-P 222 or 202 (IUSB)	5			
TOTAL CREDIT HOURS	16				TOTAL CREDIT HOURS	17			

Fall 3 rd Year	CR	GR	Sem	Fulfilled by	Spring 3 rd Year	CR	GR	Sem	Fulfilled by
CHM 111 General Chemistry – CHEM-C 101 & CHEM-C 121 (IUSB)	5				MET 32000 Thermodynamics (Prereqs: MA 16010 and MET 22000)	3			
Humanities Selective	3				MET 34600 Advanced Materials in Mfg (Prereqs: MET 211, MET 245 and Chemistry)	3			
MET 22000 Heat Power (Prereqs: PHYS I, MA 16010 and MET 16200)	3				STAT 30100 – MATH-K 310 Statistical Tech (prereqs: MA 15800)	3			
ENGL 42100 Technical Writing (Prereq: ENGL 10600)	3				Programming Selective - CNIT 17500 Visual Basic Programming	3			
TECH/MGMT Selective	3				Global/Professional Selective	3			
TOTAL CREDIT HOURS	17				TOTAL CREDIT HOURS	15			

Fall 4 th Year	CR	GR	Sem	Fulfilled by	Spring 4 th Year	CR	GR	Sem	Fulfilled by
IET 45100 or TLI 33400 Engineering Economics – IT 45000 Production Cost Analysis	3				MET Capstone Selective	3			
MET Elective or approved Focus Area elective	3				MET Elective or approved Focus Area elective	3			
MET 31300 Fluid Mechanics (Prereqs: MA 16021, MET 220 and MET 230)	3				Behavioral Social Science Selective	3			
COM 32000 Small Group Discussion (Prereq: COM 11400) or SPCH-S 229 Dis & Group Methods (IUSB)	3				Economics/Finance Selective	3			
Technical Selective or approved Focus Area elective	3								
TOTAL CREDIT HOURS	15				TOTAL CREDIT HOURS	12			

- 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.

The student is ultimately responsible for knowing and completing all degree requirements.
myPurduePlan is knowledge source for specific requirements and completion.

***** Updated 11/15/2014

MET SUPPLEMENTAL INFORMATION

All prerequisites must be met

BOLD indicates courses offered at the South Bend location.

* Indicates approved IUSB course for South Bend location.

See the Student Services Coordinator for course availability.

CGT SELECTIVE

CGT 11000 Technical Graphics Communications

CGT 16300 Graphical Communication and Spatial Analysis

IT 10500 Intro to Engineering Design

PROGRAMMING SELECTIVE

CNIT 10500 Introduction to C Programming

CS 15800 C Programming

CNIT 15500 Introduction to Object-Oriented Programming

CS 15900 Programming Applications for Engineers

CNIT 17500 Visual Programming

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.

Any MET elective course

ANSC 230 Physiology of Domestic Animals

CNIT 10500 C Language Programming

AT 27200 Intro to Composite Technology

ENTM 21800 Introduction to Forensic Sciences

AT 27800 Nondestructive Testing

FNR 30100 Wood Products/Wood Processes

AT 47800 Advanced Nondestructive Testing

FNR 31100 Wood Structure, Identification and Properties

BCHM 22100 Analytical Biochemistry

FNR 41800 Properties for Wood Related to Manufacturing

BCM 23000 Mechanical/Electrical Systems

FNR 42500 Secondary Wood Products Manufacturing

BCM 31500 Mechanical Construction Estimating

FS 22200 Safety of Foods

BCM 38000 Concrete Construction

HSCI 31200 Radiation Science Fundamentals

BIOL 20300 Human Anatomy and Physiology

IE 47700 Work Methods and Measurement

BIOL 22100 Introduction to Microbiology

IE 57700 Human Factors in Engineering

CGT 22600 Intro to Constraint Based Modeling

IT 10400 Industrial Organization

CHM 11200/CHM 11600 General Chemistry II

IT 33000 Industrial Sales and Sales Management

CHM 22300 Principles of Biochemistry

IT 34500 Automatic Identification and Data Capture

CHM 48100 Environmental Chemistry

IT 35100 Adv. Industrial Safety & Health Management

CE 35000 Environmental Engineering

IT 43400 Global Transportation and Logistics Management

CE 35500 Engineering Environmental Sustainability

MA 26100 Multivariate Calculus

TECHNICAL/MANAGEMENT SELECTIVE-any course listed on technical selective list above or one of the following courses

MGMT 20000 Accounting Principles

MGMT 45500 Legal Background for Business

TECH 32000 Technology & the Organization

MET ELECTIVE (6 credit hours)

MET 30200 CAD in the Enterprise

MET 42600 Internal Combustion Engines (Fall only)

MET 31100 Experimental Strength of Materials

MET 43200 Hydraulic Motion Control Systems (Spring Only)

MET 31700 Machine Diagnostics (Spring Only)

MET 43600 Pneumatic Motion Control Systems (Fall only)

MET 33400 Advanced Fluid Power (Spring Only)

MET 44301 Joining Processes

MET 34900 Stringed Instrument Design and Manufacture

MET 45100 Manufacturing Quality Control

MET 38200 Controls and Instrumentation for Automation

MET 48600 Fundamentals of Motorsports

MET 40000 Mechanical Design

MET 49000 Green Manufacturing and Sustainability

MET 41100 Introduction to the Finite Element Method

MET 49000 Multidisciplinary Capstone I (Fall only)

MET 42100 Air Conditioning and Refrigeration (Fall only)

MET 49000 Multidisciplinary Capstone II (Spring Only)

MET CAPSTONE SELECTIVE (3 credit hours)

MET 33400 Advanced Fluid Power (Spring Only)

MET 43600 Pneumatic Motion Control Systems (Fall only)

MET 40000 Mechanical Design

MET 49000 Multidisciplinary Capstone I (Fall only)

MET 42100 Air Conditional and Refrigeration (Fall only)

MET 49000 Multidisciplinary Capstone II (Spring Only)

MET 43200 Hydraulic Motion Control Systems (Spring only)

GLOBAL/PROFESSIONAL SELECTIVE

**ECET 38001 Global Professional Issues In Electrical Engineering
Technology**

TECH 33000 Technology and the Global Society

FRESHMAN COMPOSITION

ENGL 10600

***ENG-W 131 Reading, Writing & Inquiry**

ECONOMICS/FINANCE SELECTIVE

CSR 3420 Personal Finance

ECON 2100 Principles of Economics

ECON 25100 Microeconomics

***ECON-E 103 Intro Microeconomics**

***ECON-E 104 Intro to Macroeconomics**

ECON 25200 Macroeconomics

ENTR courses 20000 and 31000

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

Students attending the South Bend location can go to the following link to review how IU courses transfer to Purdue University to meet Core Course Requirements:

<http://www.purdue.edu/provost/initiatives/curriculum/documents/Retro%20and%20Transfer%20Credit%20Course%20list%205-27-14.pdf>

***FINA-F 100 Fundamentals of Studio Drawing**

***HIST-H 105 American History I**

***HIST-H 106 American History II**

***HIST-H 113 History of Western Civilization 1**

***HIST-H 114 History of Western Civilization 2**

***MUS-M 17400 Music for the Listener**

***PHIL-P 110 Introduction to Philosophy**

***PHIL-P 140 Introduction to Ethics**

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

Students attending the South Bend location can go to the following link to review how IU courses transfer to Purdue University to meet Core Course Requirements:

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***ECON-E 103 Introduction to Microeconomics**

***ECON-E 104 Introduction to Macroeconomics**

***POLS-Y 103 Introduction to American Politics**

***POLS-Y 109 Introduction to International Relations**

***PSY-P 103 Introduction to Psychology**

***SOC-S 161 Principles of Sociology**

***SOC-S 163 Social Problems**