

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 (*See Page 3*)
- _____ (3) MET Capstone Selective (*See Page 3*)
- _____ (3) Technical Selective or approved Focus Area Selective (*See Page 3*)

Other Departmental/Program Course Requirements (64 credits)

- _____ (3) COM 11400 (*COMM R110) - Fundamentals of Speech Communication (*satisfies Oral Communication for core*)
- _____ (3) COM 32000 - Small Group Discussion or (*COMM C223)
- _____ (3) ENGL 42100 – Technical Writing or (*ENG W231)
- _____ (3) IET 45100 or TLI 33400 (*IT 45000) – Engineering Economics
- _____ (3) MA 15800 – Precalculus – Functions and Trigonometry
- _____ (3) MA 16010 - Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- _____ (3) MA 16020 - Applied Calculus II and Differential Equations
- _____ (3) ECET 22400 – Electronic Systems
- _____ (3) CHM 11100 (*CHEM C101 & C121) – General Chemistry
- _____ (4) PHYS 22000 (*PHYS 218) - General Physics (*satisfies Science for core*)
- _____ (4) PHYS 22100 (*PHYS 219) - General Physics II (*satisfies Science for core*)
- _____ (3) STAT 30100 – 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 W131) (*satisfies Written Communication for core*)
- _____ (3) Economics/Finance Selective choose ECON 21000, ECON 25100, ECON 25200, CSR 34200, or MGMT 45500 (*ECON E201)
- _____ (3) General Education Human Cultures: Humanities Selective (*satisfies Human Cultures Humanities for core*) (*See Page 3*)
- _____ (3) General Education Human Cultures: Behavior/Social Sciences (*satisfies Human Cultures: Behavioral Sciences for core*) (*See Page 3*)
- _____ (2) CGT Selective choose CGT 11000 or CGT 16300 (*CGT 11000)
- _____ (3) Programming Selective (*See Page 3*)
- _____ (3) Global/Professional Selective (*See Page 3*)
- _____ (3) TECH/MGMT Selective (*See Page 3*)

* Denotes Columbus Campus Course Offering

University Core Requirements

Human Cultures: Behavioral/Social Sciences	.....	Science	.....
Human Cultures: Humanities	.....	Science	.....
Information Literacy	.....	Science, Technology & Society	.....
Oral Communication	.....	Written Communication	.....
Quantitative Reasoning	.....	

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 or CGT 16300)	3				MA 16010 Applied Calculus I (Prereq: MA 15800 with C- or better)	3			
MET 14300 Materials and Processes I	3				MET 11100 Applied Statics (Prereqs: MA 15800 and MET 16200)	3			
MET 16200 Computational Anly Tools	1				MET 14400 Materials and Processes II	3			
MA 15800 Precalculus	3				Humanities Selective	3			
TECH 12000 Design Thinking in Tech.*	3				COM 11400 Fundamental of Speech Communication* COMM R110 (IUPUC)	3			
English Comp Selective ENG W131 (IUPUC)	3								
TOTAL CREDIT HOURS	16				TOTAL CREDIT HOURS	15			

Fall 2 nd Year	CR	GR	Sem	Fulfilled by	Spring 2 nd Year	CR	GR	Sem	Fulfilled by
MET 21100 Strength of Materials (Pre-reqs: MET 11100 and MA 16010)	4				MET 22000 Heat Power (Pre-reqs: PHYS 220, MA 16010 and MET 162)	3			
MET 21300 Dynamics (Pre-reqs: MA 16020 and MET 11100)	3				MET 21400 Machine Elements (Pre-reqs: MET 21100 and MET 21300)	3			
MA 16020 Applied Calculus/Diff Eqns. (Pre-req: MA 16010 with grade of C- or higher)	3				ECET 22400 Electronic Systems (Pre-req: MA 153 or MA 221)	3			
PHYS 22000 General Physics I PHYS 218 (IUPUC)	4				PHYS 22100 General Physics II (Prereq: PHYS 21200) PHYS 219 (IUPUC) (Prereq: PHYS 218)	4			
					Programming Selective	3			
TOTAL CREDIT HOURS	14				TOTAL CREDIT HOURS	16			

Fall 3 rd Year	CR	GR	Sem	Fulfilled by	Spring 3 rd Year	CR	GR	Sem	Fulfilled by
MET 10200 Production Specifications (Pre-reqs: (CGT 110 or CGT 163)	3				MET 23000 Fluid Power (Pre-reqs: MET 11100 and MA 16010)	3			
MET 32000 Thermodynamics (Pre-reqs: MA 16010 and MET 22000)	3				Economics/Finance Selective ECON E201 (IUPUC)	3			
MET 28400 Intro to Industrial Controls (Pre-req: ECET 22400)	3				MET 34600 Advanced Materials in Mfg (Pre-reqs: MET 211, MET 245 and CHM 11100)	3			
CHM 111 General Chemistry CHEM C105 & C125 (IUPUC)	5				Global/Professional Selective TECH 33000	3			
MET 245 Manufacturing Systems (Pre-reqs: (MET 14300 or MET 14400)	3				STAT 30100	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
MET 31300 Fluid Mechanics (Pre-reqs: MA 16021, MET 220 and MET 230)	3				MET Capstone Selective	3			
MET Elective or approved Focus Area elective	3				MET Elective or approved Focus Area elective	3			
ENGL 42100 Technical Writing (ICN) or ENGL W231 (IUPUC)	3				Technical Selective or approved Focus Area elective	3			
TECH/MGMT Selective	3				Behavioral Social Science Selective	3			
IET 45100 Monetary Analysis IT 450 Production Cost Analysis	3				COM 32000 (ICN) Small Group Discussion (Pre-req: COM 11400) or COMM C223 (IUPUC)	3			
TOTAL CREDIT HOURS	15				TOTAL CREDIT HOURS	15			

Refer to _____ for options for 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.
- 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.
- Students must complete additional Beyond the Classroom requirements. See Student Services Coordinator for details.

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

***** Updated 10/22/2015

MET SUPPLEMENTAL INFORMATION

All prerequisites must be met.

Bold indicates courses offered at Columbus Campus.

*** Indicates IUPUC course for Columbus Campus only.**

See 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

CNIT 15500 Introduction to Object-Oriented Programming

CNIT 17500 Visual Programming

CS 15800 C Programming

CS 15900 Programming Applications for Engineers

MET 16400 Computing in Engineering Technology

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.

***CHEM C105 & C125**

***CHEM C341, C342, C343, C344**

***MATH 165, 166, 171, 221, 222, 266**

***PHYS 251**

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

BIOL 22100 Introduction to Microbiology

CGT 226 Intro to Constraint Based Modeling

CHM 11200/CHM 11600 General Chemistry II (***CHEM C106 & C126**)

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 fo 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 Intro to Financial Accounting**

MGMT 20010 Business Accounting

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 Relationships in Organizations

OLS 27400 Applied Leadership

OLS 28400 Leadership Principles

OLS 36400 Tech & the Organization

OLS 38600 Leadership for Org Change & Innovation

PSY 27200 Intro to Industrial-Organizational Psych

TLI 11200 Foundations of Organizational Leadership

TLI 15200 Business Principles for Org Leadership

TLI 21300 Project Management

TLI 25300 Principles of Technology Strategy

TLI 25400 Leading Change in Technology Orgs

Approved Study Abroad Course

MET ELECTIVE

MET 30200 CAD in the Enterprise (Spring Only)
MET 31100 Experimental Strength of Materials (Fall only)
MET 31700 Machine Diagnostics (Spring Only)
MET 33400 Advanced Fluid Power (Spring Only)
MET 34900 Stringed Instrument Design and Manufacture
MET 38200 Controls and Instrumentation for Automation (Spring Only)
MET 39200 Lab Assistant in Engineering Technology
MET 40000 Mechanical Design
MET 41100 Introduction to the Finite Element Method
MET 42100 Air Conditioning and Refrigeration (Fall only)

MET CAPSTONE SELECTIVE

MET 33400 Advanced Fluid Power (Spring Only)
MET 40000 Mechanical Design
MET 40100 Capstone Projects I
MET 40200 Capstone Projects II
MET 42100 Air Conditional & Refrigeration (Fall)
MET 43200 Hydraulic Motion Control Systems (Spring only)

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
FR 33000 French Cinema
GER 23000 German Folklore & Fairy Tales
GER 23000 German Literature in Translation
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
MSL 30200 Leadership & Ethics
MUS 37800 World Music
NS 41300 Naval Leadership Management & Ethics
OLS 45600 Tech & the Global Society
PHIL 20600 Philosophy of Religion
PHIL 29000 Environmental Ethics
PHIL 33000 Religions of the East
PHIL 33100 Religions of the West
POL 23100 Introductions to the United States Foreign Policy
PSY 33500 Stereotyping & Prejudice
PTGS 33000 Racial & Ethnic Diversity
SPAN 23500 Spanish American Literature in Translation
SPAN 33000 Spanish & Latin American Cinema
TECH 33000 Tech and the Global Society
Approved Study Abroad Course

FRESHMAN COMPOSITION

ENGL 10600 (*ENG W131)

ECONOMICS/FINANCE SELECTIVE

CSR 3420 Personal Finance
ECON 2100 Principles of Economics
ECON 25100 Microeconomics
***ECON E201 Introduction to Microeconomics**

ECON 25200 Macroeconomics
***ECON E202 Introduction to Macroeconomics**
ENTR courses 20000 and 31000

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

Students of Columbus location see the following link to review how IU courses transfer to Purdue Core:

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

*HER H100

*ENG L204

*HIST H105, H106, H114

*PHIL P110, P120

*WOST W105

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

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

*ANTH A104

*COMM C180

*ECON E201, E202

*POLS Y103

*PSY B104, B105

*SOC R100, R121