PURDUE UNIVERSITY

New Albany School of Engineering Technology   Name: _____

Major: Mechanical Engineering Technology (MET)

MET-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	Sem	Fulfilled by	Spring 1st Year	CR	GR	Sem	Fulfilled by
MA 16010 Applied Calculus I* (Prereq: ALEKS score 75)	3				**TECH 12000** Design Thinking in Tech.*	3			
MET 14400 Materials and Processes II	3				**MET 11100** Applied Statics (P: ENGT 18000)	3			
Freshman Speech Selective* **(SPCH-S121*** IU) Public Speaking	3				**MET 14300** Materials and Processes I	3			
ENGT 18000 ENG Tech Foundations	3				**MA 16020** Applied Calculus II (P: MA 16010 with grade of C- or higher)	3			
ENGT 18100 ENG Tech Applications	1				Freshman Composition Selective* (**ENG-W131***IU)	3			
Computer Graphics Technology Selective (CGT 11000, **CGT 16300**, or IT 10500)	2								
TOTAL CREDIT HOURS	15				**TOTAL CREDIT HOURS**	15			

Fall 2nd Year	CR	GR	Sem	Fulfilled by	Spring 2nd Year	CR	GR	Sem	Fulfilled by
ECET 22400 Electronics Systems (P: MA 16010)	3				**MET 21300** Dynamics (P: MA 16020 and MET 11100)	3			
MET 21100 Strength of Materials (P: MET 11100 and MA 16010)	4				**MET 10200** Production Specifications (P: CGT selective and ENGT 18000)	3			
Programming Selective	3				**MET 28400** Intro to Industrial Controls (P: ECET 22400)	3			
PHYS 22000* General Physics I	4				**PHYS 22100** General Physics II*(P: PHYS 22000)	4			
					Humanities Selective*	3			
TOTAL CREDIT HOURS	14				**TOTAL CREDIT HOURS**	16			

Fall 3rd Year	CR	GR	Sem	Fulfilled by	Spring 3rd Year	CR	GR	Sem	Fulfilled by
CHM 11100 (**CHEM-C101/C121***IU) General Chemistry	3				**MET 32000** Thermodynamics (P: MA 16010 and MET 22000)	3			
MET 23000 Fluid Power (P: MET 11100 and MA 16010)	3				**MET 34600** Advanced Materials in Mfg) (P: MET 21100, MET 24500 and CHEM 111)	3			
MET 22000 Heat Power (P: PHYS 22000, MA 16010 & ENGT 18000)	3				Economics/Finance Selective	3			
MET 24500 Manufacturing Systems (P: MET 14300 or MET 14400)	3				Global/Professional Selective	3			
STAT 30100 (**MATH-K300***IU) Elementary Statistical Methods	3				**Mechanics Selective**	3			
TOTAL CREDIT HOURS	15				**TOTAL CREDIT HOURS**	15			

Fall 4th Year	CR	GR	Sem	Fulfilled by	Spring 4th Year	CR	GR	Sem	Fulfilled by
TLI 33400 Economic Analysis for Technology	3				**MET Capstone Selective II** (Pre-reqs: Capstone Selective I)	3			
MET 31300 Fluid Mechanics (P: MA 16020, MET 22000 and MET 23000)	3				**MET Elective** or approved Focus Area elective	3			
MET Capstone Selective I	3				Technical Sel/Approved Focus Area elective	3			
Technical/Management Selective	3				Behavioral Social Science Selective*	3			
Technical Writing Selective	3				Communications Selective	3			
TOTAL CREDIT HOURS	15				**TOTAL CREDIT HOURS**	15			

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 unless otherwise noted.
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 the Global / Intercultural Requirement (ungraded) ☐.   Complete the Professional Requirement (ungraded) ☐.

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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 4/19/2019*

Bold indicates courses offered at New Albany Campus.

*Indicates IU Southeast course for New Albany Campus only (See Student Affairs Administrator for availability.)

CGT SELCTIVE

CGT 11000 Technical Graphics Communications

CGT 16300 Graphical Communication and Spatial Analysis

IT 10500 Intro to Engineering Design

FRESHMAN COMPOSITION

ENGL 10600 First-Year Composition

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

FRESHMAN SPEECH SELECTIVE

COM 11400 Fundamentals of Speech Communication

SCLA 10200 Transformative Texts, Critical Thinking and Community II: Modern World

ECONOMICS/FINANCE SELECTIVE

AGEC 21700 Economics

CSR 34200 Personal Finance (***BUS-F260**)

ECON 21000 Principles of Economics (***ECON-E101**)

ECON 25100 Microeconomics **(*ECON-E103)**

ECON 25200 Macroeconomics **(*ECON-E104)**

ENTR 20000 Introduction To Entrepreneurship And Innovation

COMMUNICATIONS SELECTIVE

COM 31500 Speech Communication of Technical Info

COM 32000 Small Group Communication (OLS 38800)

COM 41500 Discussion of Technical Problems

EDPS 31500 Collaborative Leadership: Interpersonal Skills

TECHNICAL WRITING SELECTIVE

ENGL 42100 Technical Writing

ENGL 42400 Writing for High Technology Industries

TECHNICAL SELECTIVE

A 300-400 level ENGR, ECET, MFET, CS or elective IET course (excluding MFET 30000).

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

*MATH-M303, M311, M313, PHYS-P301

Any MET elective course

ANSC 23000 Physiology of Domestic Animals

AT 27200 Introduction to Composite Technology

AT 27800 Nondestructive Testing For Aircraft

AT 47800 Advanced Nondestructive Testing

BCHM 22100 Analytical Biochemistry

BCM 23000 Mechanical and 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 22600 Introduction to Constraint-Based Modeling

CGT 30301 Digital Manufacturing

CHM 11200 General Chemistry **(*CHEM-C102)**

CHM 11600 General Chemistry

CHM 48100 Environmental Chemistry

CE 35000 Introduction to Environmental and Ecological Engineering

CE 35500 Engineering Environmental Sustainability

HSCI 31200 Radiation Science Fundamentals

IE 57700 Human Factors In Engineering

IT 33000 Industrial Sales and Sales Management

IT 34500 Automatic Identification and Data Capture

IT 35100 Advanced Industrial Safety and Health Management

IT 43400 Global Transportation and Logistics Management

MA 26100 Multivariate Calculus

MFET 28800 Smart Manufacturing Operational and Info Networks

NS 35000 Naval Ship Systems

TLI 31300 Technology Innovation and Integration: Bar Codes to Biometrics

TLI 33620 Total Productive Maintenance

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

ENTR 31500 Business Planning for Social Entrepreneurship

MFET 35800 Smart Manufacturing and the Global Economy

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 36400 Tech & the Organization

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

TLI 41400 Financial Analysis for Technology Systems

Approved Study Abroad Course

MECHANICS SELECTIVE

MET 31100 Experimental Strength of Materials

MET 31400 Applications of Machine Elements (Recommended)

MET 31500 Applied Kinematics and Dynamics

MET 31601 Mechanics of Machine Design

MET 31700 Machine Diagnostics

MET 41100 Introduction to the Finite Element Method

PROGRAMMING SELECTIVE

CNIT 10500 Introduction to C Programming

CNIT 15500 Introduction to Object-Oriented Programming

CNIT 15501 Introduction to Software Development Concepts

CNIT 17500 Visual Programming

CS 15800 C Programming

CS 15900 Programming Applications for Engineers

CS 17700 Programming with Multimedia Objects

CS 18000 Problem Solving and Object-Oriented Programming

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 31400 Applications of Machine Elements

MET 31500 Applied Mechanism Kinematics and Dynamics

MET 31601 Mechanics of Machine Design

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 (Fall only)

MET 42200 Power Plants And Energy Conversion

MET 42600 Internal Combustion Engines

MET 43200 Hydraulic Motion Control Systems (Spring Only)

MET 43600 Pneumatic Motion Control Systems (Fall only)

MET 44301 Joining Processes

MET 45100 Manufacturing Quality Control

MET 48200 Mechatronics

MET 48600 Fundamentals of Motorsports

MET 49000 Green Manufacturing and Sustainability

MET 49900 Mechanical Engineering Technology

MET CAPSTONE SELECTIVE I & II

ECET 43000 Electrical and Electronic Product and Program Management

ECET 43100 International Capstone Project Planning and Design

ECET 46000 Project Design And Development

ECET 46100 International Capstone Project Execution

ENGT 40500 Entrepreneurial Capstone I

ENGT 40600 Entrepreneurial Capstone II

MET 33400 Advanced Fluid Power

MET 40000 Mechanical Design

MET 40100 Capstone Projects I

MET 40200 Capstone Projects II

MET 42100 Air Conditioning And Refrigeration

MET 42200 Power Plants And Energy Conversion

MET 42600 Internal Combustion Engines

MET 43200 Hydraulic Motion Control Systems

MET 43600 Pneumatic Motion Control Systems

MFET 48000 Project Planning for Integration

MFET 48100 Integration of Manufacturing 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

FNR 48800 Global Environmental issues

FR 33000 French Cinema

GER 23000 German Literature in Translation

GER 28000 German Special Topics

GER 330 German Cinema

HIST 30000 Eve of Destruction

HIST 33300 Science & Technology in Western Civilization I

HIST 33400 Science & Technology in Western Civilization II

HIST 36000 Gender in Middle East History

JPNS 28000 Introduction to Modern Japanese Civilization

LC 23500 East Asian Literature in Translation

LC 23900 Women Writers in Translation

MFET 35800 Smart Manufacturing and the Global Economy

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 Global Moral Issues for Engineers
PHIL 20600 Philosophy of Religion
PHIL 29000 Environmental Ethics **(*PHIL-P237)**
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

Intercultural Requirement
Step 1: Complete the Pre-test Intercultural Development Inventory Assessments (1st year)
Step 2: Complete one (1) of the following global experiences:*
- Participate in A Purdue University international capstone, collaborative project, or
- Participate in an international internship (international location), or
- Participate in a full semester abroad program or
- Complete 3 credit hours from the Polytechnic list of recommended Global/Cultural courses.
Step 3: Complete the Post-test Intercultural Development Inventory Assessments (4th year)
NOTE FOR TRANSFER/CODO STUDENTS: Transfer and CODO students with less than 75 credit hours remaining to completed their Polytechnic Plan of Study are exempt from Step 1 (taking the IDI Pre-test).
*Global experiences must take place during the time of enrollment in Polytechnic to complete Step 2. Experiences taken place prior to a student's initial enrollment will not serve to complete Step 2. Intercultural competencies gained on experiences prior to Polytechnic enrollment will be captured as baseline data on a student's IDI.

AAS 27100 Introduction To African American Studies 3.00
AAS 37300 Issues In African American Studies 3.00
AGR 20100 Communicating Across Culture 3.00
ANSC 38100 Leadership For A Diverse Workplace 3.00
ANTH 20300 Biological Bases Of Human Social Behavior 3.00
ANTH 20500 Human Cultural Diversity 3.00
ANTH 21000 Technology And Culture 3.00
ANTH 21200 Culture, Food And Health 3.00
ANTH 23000 Gender Across Cultures 3.00
ANTH 34000 Global Perspectives On Health 3.00
ANTH 34100 Culture And Personality 3.00
ANTH 37900 Native American Cultures 3.00
ARAB 28000 Arabic Culture 3.00
ASAM 24000 Introduction To Asian American Studies 3.00
AT 23300 Ethics And Aviation 3.00
CNIT 32000 Policy, Regulation, And Globalization in Info Technology 3.00
COM 22400 Communicating In The Global Workplace 3.00
COM 30300 Intercultural Communication 3.00
COM 32000 Small Group Communication 3.00
COM 37300 Self-Presentation And Social Image 3.00
COM 41200 Theories Of Human Interaction 3.00
COM 42300 Leadership, Communication And Organizations 3.00
ECET 29000 International Experience 1.00 to 3.00
ECET 38001 Global Professional Issues In Engineering Technology 3.00
EDPS 23500 Learning And Motivation 3.00
EDPS 30000 Student Leadership Development 1.00 to 3.00
EDPS 30100 Peer Counseling Training 1.00 to 3.00
EDPS 31500 Collaborative Leadership: Interpersonal Skills 3.00
EDPS 31600 Collaborative Leadership: Cross-Cultural Settings 3.00
EDPS 31700 Collaborative Leadership: Mentoring 3.00
ENGL 41400 Studies In Literature And Culture 3.00
HDFS 33200 Stress And Coping In Contemporary Families 3.00
HEBR 38500 The Holocaust In Modern Hebrew Literature 3.00
HIST 19500 The Historian's Craft: Historical Research And Film 3.00
HIST 30000 Eve Of Destruction: Global Crises In 20th Century 3.00

HIST 33805 History Of Human Rights 3.00
HIST 35000 Science And Society In The Twentieth Century World 3.00
HIST 36600 Hispanic Heritage Of The United States 3.00
HIST 37700 History And Culture Of Native America 3.00
HIST 46900 Black Civil Rights Movement 3.00
HIST 47900 American Rep Of The Middle East & North Africa 3.00
HTM 37000 Sustainable Tourism And Responsible Travel 3.00
HTM 37200 Global Tourism Geography 3.00
MSL 20100 Individual Leadership Studies 2.00 or 3.00
OLS 35000 Creativity In Business And Industry 3.00
PHIL 11400 Global Moral Issues 3.00
PHIL 43500 Philosophy Of Mind 3.00
POL 22200 Women, Politics, And Public Policy 3.00
POL 23500 International Relations Among Rich And Poor Nations 3.00
POL 32600 Black Political Participation In America 3.00
POL 32700 Global Green Politics 3.00
POL 36000 Women And The Law 3.00
POL 41300 The Human Basis Of Politics 3.00
POL 42300 International Environmental Policy 3.00
[After] POL 42900 - It's A Complex World
POL 43300 International Organization 3.00
PSY 12000 Elementary Psychology 3.00
PSY 25100 Health Psychology 3.00
PSY 32200 Neuroscience Of Motivated Behavior 3.00
SOC 10000 Introductory Sociology 3.00
SOC 31000 Racial And Ethnic Diversity 3.00
SOC 33900 Introduction To The Sociology Of Developing Nations 3.00
TECH 33000 Technology And The Global Society 3.00
TLI 11200 Foundations Of Organizational Leadership 3.00
TLI 31400 Leading Innovation In Organizations 3.00
WGSS 28200 Introduction To LGBT Studies 3.00
WGSS 38000 Gender And Multiculturalism 3.00
WGSS 38300 Women And Work 3.00
[After] Any foreign language 20000 level or higher (20100, 20200, 30100, 30200)

Completing the Professional Experience Requirement: All students must complete an acceptable professional experience. The SOET Professional Experience requirement is intended to document those experiences which help expose SOET students to the expectations of their profession prior to graduation. This may occur through industrial experience, technical or administrative involvement with community service, military service, or by other possible means. Approval is automatic for certain experiences, while additional experiences may also satisfy this graduation requirement with advisor or faculty approval (see below). Requests for faculty approval must be submitted to the SOET Curriculum Subcommittee Chair for consideration, allowing at least four academic weeks for review and response.

Table 1: Approved Professional Experiences

Approval Process	Experience
Automatic	Any TECH Professional Practice course (co-op, intern, etc.)
Automatic	MET 29900 Internship for Credit
Automatic	Industry-sponsored Senior Capstone
Automatic	EPICS courses, minimum of two
Automatic	Lab Assistant (satisfactory completion of a minimum of one lab division for one term; e.g., ECET 29900 or MET 39200)
Advisor	Any approved internship (assuming student and/or employer provide documentation)
Advisor	Military service (ROTC, reservist, active duty, veteran)
Faculty	Other undergraduate research experiences (e.g., employed in the AEL as lab technician)
Faculty	Independent study – by petition to ensure the project meets the spirit of the requirement
Faculty	Professional society/club activities (e.g., led the Solar Racing team) - by petition
Faculty	Any approved employment

Approval Key:
- Automatic – student participation in this professional experience is already documented through existing means.
- Advisor – advisor reviews student's experience to determine if it meets the spirit of the Professional Experience requirement.
- Faculty – designated committee reviews student's experience to determine if it meets the spirit of the Professional Experience requirement