

Fall 1 st Year	CR	GR	Sem	Fulfilled by	Spring 1 st Year	CR	GR	Sem	Fulfilled by
MA 15800 PreCalculus – Functions & Trigonometry* (Pre-req ALEKS score 60)	3				MA 16010 Applied Calculus I (Pre-req: MA 15800 with grade of C- or better or ALEKS score 75)	3			
ENGT 18000 Engineering Technology Foundations (Pre-req ALEKS 60, SAT 570, ACT 24, or MA 15300 or higher)	3				MET 11100 Applied Statics (Pre-reqs: MA 15800 and ENGT 18000)	3			
ENGT 18100 Engineering Technology Applications	1				TLI 23500 Intro to Lean and Sustainable Syst [⁸ Technical Selective]	3			
SCLA 10100 Transformative Texts, Critical Thinking & Communication I* [¹² Written Communication Selective*]	3				SCLA 10200 Transformative Texts, Critical Thinking & Communication II* [¹¹ Oral Communication Selective*]	3			
CGT 11000 Technical Graphic Comm.	3				MET 14300 Materials & Processes I	3			
TECH 12000 Design Thinking in Tech.*	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
CNIT 15500 Intro to Obj-Oriented Prog. [³ Programming Selective]	3				MET 10200 Production Design & Specs. [¹ Computer-Aided Design Selective]	3			
PHYS 22000 General Physics I*	4				PHYS 22100 General Physics II [⁶ Lab Science Foundation Selective*]	4			
ECET 22400 Electronics Systems [² ECET Selective]	3				ECET 30201 Intro. to Industrial Controls {Pre-req: ECET 17700 or ECET 22400} [² ECET Selective]	3			
MET 24500 Manufacturing Systems (Pre-reqs: MET 14400 & CGT 11000)	3				[¹⁰ Humanities Foundation Selective*]	3			
IET 11100 Intro to Mfg & Supply Chain	3				TLI 11200 Found'n of Organiz'l Leadership	3			
TOTAL CREDIT HOURS	16				TOTAL CREDIT HOURS	16			

Fall 3 rd Year	CR	GR	Sem	Fulfilled by	Spring 3 rd Year	CR	GR	Sem	Fulfilled by
IET 31600 Statistical Quality Control (Pre-req: MA 15800)	3				IET 43640 Lean Six Sigma [⁸ Technical Selective (300- 400 level)]	3			
[⁸ Technical Selective]	3				IET 43530 Operations Planning & Mgmt. (Pre-req: Math Selective) [⁸ Technical Selective (300-400 level)]	3			
[⁹ Technical/Management Selective]	3				[⁴ Global/Professional Selective]	3			
[⁷ Humanities/Liberal Arts Elective]	3				MET 213 Dynamics (Pre-reqs: MA 16010 & MET 11100) [¹⁶ Free Elective (200+level)]	3			
[¹⁶ Free Elective (200+level)]	3				ECON 21000 Principles of Economics	3			
TOTAL CREDIT HOURS	15				TOTAL CREDIT HOURS	15			

Fall 4 th Year	CR	GR	Sem	Fulfilled by	Spring 4 th Year	CR	GR	Sem	Fulfilled by
ENGT 48000 ET Capstone I (Pre-reqs: MET 245, IET 43530, & IET 43640) [⁵ Senior Capstone Project Selective I]	3				ENGT 48100 ET Capstone II (Pre-req: Capstone Selective I) [⁵ Senior Capstone Project Selective II]	3			
IET 33400 Economic Analysis for Tech Systems (Pre-req: Math/Stat Selective)	3				COM 32000 Small Group Communication [Pre-req: SCLA 10200] [¹³ Adv Oral Communication Selective]	3			
[⁸ Technical Selective]	3				[⁸ Technical Selective (300- 400 level)]	3			
[⁸ Technical Selective (300- 400 level)]	3				[⁸ Technical Selective (300- 400 level)]	3			
ENGL 42100 Technical Writing [Pre-req: SCLA 10100]	3								
TOTAL CREDIT HOURS	15				TOTAL CREDIT HOURS	12			

*Fulfills University Core Requirement

- 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
- 2.0 Graduation GPA required for Bachelor of Science degree.
- 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University.
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- Complete a ¹⁵Professional Requirement. and Complete an ¹⁴Intercultural Requirement.

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

Richmond ET Supplemental Information

All prerequisites must be met

Bold indicates courses offered at Richmond location.

See Student Affairs Administrator for course availability.

¹COMPUTER-AIDED DESIGN SELECTIVES

CGT 22600 Introduction to Constraint-based Modeling

MET 10200 Production Design and Specifications

²ECET SELECTIVES

Select one two-course sequence from the table below.

ECET 17700 DAQ & Systems Control (P: ENGT 18000 & 18100)	AND	ECET 17900 Intro to Digital Systems (P: ENGT 18000, ENGT 18100 & CNIT 10500)
ECET 22400 Electronic Systems	AND	ECET 17900 Intro to Digital Systems (P: ENGT 18000, ENGT 18100 & CNIT 10500)
ECET 22400 Electronic Systems	AND	ECET 30201 Introduction to Industrial Controls (P: ECET 17700 or ECET 22400)
ECET 22400 Electronic Systems	AND	ECET 38501 (formerly ECET 38500) Intro to Automotive Electronics (P: ECET 22400 or 22700)

³PROGRAMMING SELECTIVES

CNIT 10500 Introduction to C Programming

CNIT 15500 Introduction to Object-Oriented Programming

CNIT 15501 Introduction to Software Development Concepts

CNIT 17500 Visual Programming

MET 16400 Computing in Engineering Technology

⁴GLOBAL/PROFESSIONAL SELECTIVES

ECET 38001 Global/Professional Issues in EET

TECH 33000 Technology and the Global Society

TLI 35600 Global Technology Leadership

Approved Study Abroad

⁵SENIOR CAPSTONE PROJECT SELECTIVES

Select one two-course sequence from the table below.

<u>⁵Senior Capstone Project Selective I</u>		<u>⁵Senior Capstone Project Selective II</u>	
ECET 43000 – Product/Project Management (P: ECET 38001 & 9-12 cr. hrs. of coursework in technical focus area)	And	ECET 46000 – Project Design & Development	
MET 40100 – Capstone Projects I (P: MET 10200, MET 23000, MET 28400, MET 34600)	And	MET 40200 – Capstone Projects II	
MFET 48000 – Project Plan Integration (P: MFET 37400)	And	MFET 48100 Integration Manufacturing Systems (P: MFET 48000)	
ECET 43000 –Product/Project Management (P: ECET 38001 and 9-12 cr. hrs. of coursework in technical focus area)	And	MET 40200 – Capstone Projects II	
ENGT 40500 – Entrepreneurial Capstone I (for entrepreneurial minor senior students only)	And	ENGT 40600 – Entrepreneurial Capstone II (for entrepreneurial minor senior students only)	
ECET 43100 – International Capstone Plan	And	ECET 46100 International Capstone Project Execution	
TECH 39900 Special Topics in Technology III	And	TECH 49900 Special Topics in Technology IV	
ENGT 48000 Engineering Technology Capstone I	And	ENGT 48100 Engineering Technology Capstone II	

⁶LAB SCIENCE SELECTIVES

See approved UCC Science list: <http://www.purdue.edu/provost/initiatives/curriculum/course.html>

PHYS 22100 General Physics

⁷HUMANITIES/LIBERAL ARTS ELECTIVES

Any course from the following disciplines: Anthropology, English, **History**, Philosophy, Political Science, **Psychology**, Religious Studies, **Sociology**, Theatre, Women’s Studies, or Foreign Languages (except native language courses).

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⁸TECHNICAL SELECTIVES

At least 15 credit hours must be at the 30000 level or above and at least 6 credit hours must be in the same discipline.

CGT 32300 Virtual Product Integration

CGT 32600 Graphics Standards for Product Definition

ECET 30201 Introduction to Industrial Controls

ECET 32100 Introduction to Nanotechnology

ECET 32700 Instrumentation and DAQ Design

ECET 38501 Intro to Automotive Electronics

or ECET 38502 Intro to Automotive Electronics Lab

IET 23500 Introduction to Lean and Sustainable Systems

IET 33520 Human Factors for Technology Systems

IET 33400 Economic Factors for Technology Systems

or IT 45000 Prod Cost Analysis

IET 33610 Risk Analysis & Assessment

or IT 38500 Industrial Ergonomics

IET 33620 Total Production Maintenance

or IT 38100 Total Productive Main

IET 41400 Financial Analysis for Tech Systems

or IT 43200 Financial Transaction Distrib

IET 43530 Operations Planning and Management

or IT 44200 Production Planning

IET 43540 Facilities Planning

or IT 48300 Facilities Design Lean Manufacturing

IET 43640 Lean Six Sigma

or **IT 44600 Six Sigma Quality**

MET 30200 CAD in the Enterprise

MET 32000 Applied Thermodynamics

MET 38200 Controls & Instrumentation

MET 34600 Adv. Materials in Manufacturing

MET 42100 Air Conditioning & Refrigeration

MET 43200 Hydraulic Motion Control

MET 43600 Pneumatic Motion Control

MET 45100 Manufacturing Quality Control

MFET 30000 Applications of Automation in Manufacturing

MFET 34400 Automated Manufacturing Processes

MFET 34800 Advanced Industrial Robotics

MFET 37400 Manufacturing Integration I

TLI 31400 Leading Innovation in Organizations

TLI 31500 New Product Development

or **TECH 22000 Design Technology for People**

TLI 45700 Technology Policy & Law

⁹TECHNICAL /MANAGEMENT SELECTIVES

Any Management (MGMT) course at the 200-level or higher

IET 21400 Intro to Supply Chain Systems

IET 41400 Financial Analysis for Tech

IET 43530 Operations Plan & MGMT

TECH 32000 Technology and the Organization

TLI 15200 Business Principles in Org Leadership

TLI 21300 Project Management

TLI 25300 Principles of Technology Strategy

TLI 25400 Leading Change in Technology Organizations

TLI 31400 Leading Innovation in Org

Approved Study Abroad

¹⁰HUMANITIES FOUNDATION SELECTIVE

See approved UCC Humanities list at: <http://www.purdue.edu/provost/initiatives/curriculum/course.html>.

¹¹ORAL COMMUNICATION SELECTIVE

COM 11400 Fundamental of Speech Communication

SSCLA 10200 Transformative Texts, Critical Thinking & Com II

¹²WRITEN COMMUNICATION SELECTIVE

ENGL 10600 First-Year Composition

ENGL 10800 Accelerated First Year Composition

SCLA 10100 Transformative Texts, Critical Thinking & Com I

¹³ADVANCED ORAL COMMUNICATION SELECTIVE

COM 32000 Small Group Communications

COM 30300 Intercultural Communication

or COM 31400 Adv. Presentational Speaking

¹⁴INTERCULTURAL REQUIREMENT

All students must complete the School of Engineering Technology (Polytechnic) Growth Plan for Global Awareness and Intercultural Competency at the Developmental Level (see below). Students who are interested in further developing their Global Awareness and Intercultural Competency are encouraged to complete the requirement at the Emerging Level or the Proficient Level (see advisor for more information).

Polytechnic Growth Plans for Global Awareness & Intercultural Competency

Richmond ET Supplemental Information

All prerequisites must be met

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Student Affairs Administrator for course availability.

14INTERCULTURAL REQUIREMENT CONTINUED...

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 Pretest).

*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

AAS 37300 - Issues in African American Studies

AGR 20100 - Communicating Across Culture

ANSC 38100 - Leadership for A Diverse Workplace

ANTH 20300 - Biological Bases of Human Social Behavior

ANTH 20500 - Human Cultural Diversity

ANTH 21000 - Technology and Culture

ANTH 21200 - Culture, Food and Health

ANTH 23000 - Gender Across Cultures

ANTH 34000 - Global Perspectives on Health

ANTH 34100 - Culture and Personality

ANTH 37900 - Native American Cultures

ARAB 28000 - Arabic Culture

ASAM 24000 - Introduction to Asian American Studies

AT 22300 - Human Factors for Flight Crews

CNIT 32000 - Policy, Regulation, & Globalization in IT

COM 22400 - Communicating in The Global Workplace

COM 30300 - Intercultural Communication

COM 32000 - Small Group Communication

COM 37300 - Self-Presentation and Social Image

COM 41200 - Theories of Human Interaction

COM 42300 - Leadership, Communication and Organizations

ECET 29000 - International Experience

ECET 38001 - Global Professional Issues in Engineering Technology

EDPS 30000 - Student Leadership Development

EDPS 30100 - Peer Counseling Training

EDPS 31500 - Collaborative Leadership: Interpersonal Skills

EDPS 31600 - Collaborative Leadership: Cross-Cultural Settings

EDPS 31700 - Collaborative Leadership: Mentoring

ENGL 41400 - Studies in Literature and Culture

HDFS 28000 - Diversity in Individual and Family Life

HDFS 33200 - Stress and Coping in Contemporary Families

HEBR 38500 - The Holocaust in Modern Hebrew Literature

HIST 19500 - The Historian's Craft: Historical Research and Film

HIST 30000 - Eve of Destin: Global Crises & World Org 20th Century

HIST 33805 - History of Human Rights

HIST 35000 - Science and Society in The Twentieth Century World

HIST 36600 - Hispanic Heritage of The United States

HIST 37700 - History and Culture of Native America

HIST 46900 - Black Civil Rights Movement

HTM 37000 - Sustainable Tourism and Responsible Travel

HTM 37200 - Global Tourism Geography

MSL 20100 - Individual Leadership Studies

OLS 35000 - Creativity in Business and Industry

PHIL 11400 - Global Moral Issues

PHIL 43500 - Philosophy of Mind

POL 22200 - Women, Politics, And Public Policy

POL 23500 - International Relations Among Rich and Poor Nations

POL 32600 - Black Political Participation in America

POL 32700 - Global Green Politics

POL 36000 - Women and The Law

POL 41300 - The Human Basis of Politics

POL 42300 - International Environmental Policy

POL 42900 It's a Complex World

POL 43300 - International Organization

PSY 12000 - Elementary Psychology

PSY 25100 - Health Psychology

PSY 32200 - Neuroscience of Motivated Behavior

SOC 10000 - Introductory Sociology

SOC 31000 - Racial and Ethnic Diversity

SOC 33900 - Introduction to The Sociology of Developing Nations

TECH 33000 - Technology and The Global Society

TLI 11200 - Foundations of Organizational Leadership

TLI 31400 - Leading Innovation in Organizations

WGSS 28200 - Introduction to LGBT Studies

WGSS 38000 - Gender and Multiculturalism

WGSS 38300 - Women and Work

Any foreign language 20000 level or higher
(20100, 20200, 30100, 30200).

Revised 06/19/2020 (Fall 2020)

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Student Affairs Administrator for course availability.

¹⁵**PROFESSIONAL REQUIREMENT**

The SOET Professional Experience requirement is intended to document those experiences which help expose SOET students to the expectations of their professional prior to graduation. This may occur through industrial experience, technical or administrative involvement with community service, military service, et cetera. Approval has been granted for the following experiences. Additional experiences may also satisfy this graduation requirement. Requests for approval should 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 by	Experience
Automatic	Any TECH Professional Practice course (co-op, intern, etc.)
Automatic	MET 29900 Internship for credit
Automatic	EPICS courses, minimum of two
Advisor	Any approved internship (assuming student and/or employer provide documentation)
Advisor	Military service (ROTC completion, reservist, active duty, veteran)
Faculty	Supervised undergraduate research experiences or laboratory assistantships (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 or industry project

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.

¹⁶**FREE ELECTIVES**

Any non-remedial course offered for credit at the University not already required/being used on the Plan of Study.

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