

New Albany Supplemental Information for Electrical Engineering Technology (EETC) Fall 2019 Plan of Study

Bold indicates courses offered at New Albany Campus.

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

ECET Selectives (12 hours): ECET Selectives can be selected from one or more of the following groups. Please note that not all ECET Selectives are offered every year and not all ECET Selectives are taught at all locations.

Audio

ECET 32700 Instrumentation and DAQ Design
ECET 33900 Digital Signal Processing
ECET 34900 Advanced Digital Systems
ECET 38800 Analog IC Applications
ECET 42800 Audio Electronics-Selected Topics

ECET 33500 Computer Arch & Perform Eval
ECET 33900 Digital Signal Processing
ECET 34900 Advanced Digital Systems
ECET 35901 Computer Based DAQ Applications
ECET 43900 Advanced Digital Signal Processing

ECET 32700 Instrumentation and DAQ Design
ECET 37201 Continuous Control Electronics
ECET 38600 Bldg Elec Codes & Std Practices
ECET 43600 Elec Power Tran Distrib & Smart

Communications

ECET 36400 Fundamentals of Electromagnetics
ECET 44400 Wireless Systems: Design & Meas
ECET 31410 Military RF Applications

Smart Living

ECET 31100 Elec Syst & Signals in Healthcare
ECET 32100 Introduction to Nanotechnology
ECET 32700 Instrumentation and DAQ Design

Smart Mobility

ECET 32300 Intro to Elec Vehicle Systems
ECET 33300 Power Electronics in Energy System
ECET 37300 Applied Electronic Drives
ECET 42301 Elec Vehicle Integr/Fabrication

Computer/Digital

ECET 32900 Adv Embedded Digital Systems

Smart Environment

ECET 30201 Introduction to Industrial Controls

Study Abroad/Professional Practice

ECET Co-op Sessions 4 and 5

Advanced Analysis Selective (3 hours): **ECET 33700** Continuous Systems Analysis & Design or ECET 33900 Digital Signal Processing.

ECET Senior Capstone Selectives I and II (6 hours): Select one pair of Senior Capstone Selectives I and II:

- **ECET 43000** Product/Project Management **and** **ECET 46000** Project Design and Development
- ECET 43100 International Capstone Plan **and** ECET 46100 International Capstone Project Execution
- ENGT 40500 Entrepreneurial Capstone I **and** ENGT 40600 Entrepreneurial Capstone II

Technical Selectives (9 hours) from the following departments and Colleges. Limitations in courses or areas are noted below.

- **ECET:** ECET 29900 and other lab assistant courses are limited to 3 credit hours.
- **College of Engineering:** ME 29700 and Engineering Projects in Community Service (EPICS) are each limited to 3 credit hours. First-Year Engineering (ENGR) courses cannot be used.
- **Purdue Polytechnic Institute:** MET, CGT, TLI, OLS, IT. CNIT 13600 and CNIT 15501 cannot be used.
- **College of Science:** Additional lab-based physics (PHYS), chemistry (CHM) and biology (BIOL) courses; Computer Science (CS) courses; and higher-level mathematics (MA) courses: MA 26100, MA 26500 and MA 26600. CS 11000, CS 23500, CS 15800 and CS 15900 cannot be used.
- **College of Liberal Arts:** Up to 9 hours of THTR 25300, THTR 35300, THTR 55300, FVS 26100, FVS 33200, FVS 33700, or FVS 33800. ***MUS-A101**
- ECET Co-op sessions 1, 2, and 3 with seminar
- ECET 49900 Electrical Engineering Technology

English Composition Selective (3 hours): Must complete at least one course from each category (Satisfies written communication for core).

ENGL 10600 First-Year Composition (**ENG-W131***IU); ENGL 10800 Accelerated First-Year Composition; SCLA 10100 Transformative Texts, Critical Thinking and Communication I: Antiquity to Modernity

Freshman Speech Selective (3 hours): Must complete at least one course from each category (Satisfies oral communication for core).

COM 11400 Fundamentals of Speech Communication (**SPCH-S121***IU); SCLA 10200 Transformative Texts, Critical Thinking and Communication II: Modern World

Communications Selective (6 hours): Must complete at least one course from each category (oral communication and written communication).

- **Written communication** (3 hours): ENGL 20500 Creative Writing; ENGL 30400 Adv. Composition; ENGL 42000 Business Writing; **ENGL 42100** Technical Writing
- **Oral communication** (3 hours): Any communications (COM) course at the 200 level or higher. ***SPCH-S229 or OLS 38800**

Business Selective (3 hours): Select one of the following (courses that satisfy the UCC Human Cultures Behavior/Social Sciences (BSS) requirement are marked BSS):

- Any Agricultural Economics course (AGEC) at the 200-level or higher: AGEC 20000 or higher.
- Any Economics (ECON) course at the 200-level or higher: ECON 20000 or higher.
- Any Entrepreneurship (ENTR) course at the 200-level or higher: ENTR 20000 or higher.
- Any Management (MGMT) course at the 200-level or higher: MGMT 20000 or higher.
- Or select one of the following courses:

AGEC 20300 Intro Microecon for Food & Agribus (BSS)
AGEC 20400 Resource Econ & Environ Pol (BSS)
AGEC 21700 Economics (BSS)
AGEC 25000 Econ Geography of World Food(BSS)
ECON 21000 (**ECON-E101***IU) Prin of Economics (BSS)
ECON 25100 (**ECON-E103***IU) Microeconomics (BSS)

ECON 25200 (**ECON-E104***IU) Macroeconomics (BSS)
CSR 34200 Personal Finance ***BUS-F260**
TLI 11100 Gateway to TLI
TLI 11200 Foundations of Org Leadership
TLI 21300 Project Management
TLI 21400 Ind. Supply Chain Mgmt Tech

TLI 34200 Warehouse and Inventory Mgmt
TLI 34250 Purchasing and Contract Mgmt
TLI 34300 Technical and Service Selling

General Education Selectives (12 hours). Select 12 hours in one or more of the subject areas (discipline) listed below, subject to the following constraints:

- One course must be from the UCC approved list of Human Culture: Humanities <http://www.purdue.edu/provost/initiatives/curriculum/course.html>). ***ENG-L104, FINA-F100, FINA-H100, HIST-H105, HIST-H106, MUS-M174, EALC-J101, and other Foreign Languages**
- One course must be from the UCC approved list of Human Culture: Behavior/Social Sciences (<http://www.purdue.edu/provost/initiatives/curriculum/course.html>), unless the student has selected a course on the BSS list for the Business Selective. ***POLS-Y103, PSY-P101, SOC-S163**

Within this framework, the student must select courses from the following subject areas:

Foreign languages (except for courses in a student's native language)

African American Studies (AAS)
Art and Design (AD),
American Studies (AMST)
Anthropology (ANTH)
Asian American Studies (ASAM)
American Sign Language (ASL)
Bands (BAND)
Classics (CLCS)

Comparative Literature (CMPL)
Communication (COM)
English (ENGL)
History (HIST)
Interdisciplinary Studies (IDIS)
Linguistics (LING)
Music History and Theory (MUS)
Philosophy (PHIL)

Political Science (POL)
Psychology (PSY)
Religious Studies (REL)
Sociology (SOC)
Theater (THTR)
Women's Studies (WGSS)
ROTC (AFT, MILT, NS)

Industrial Economics Selective (3 hours):

IET 45000 Production Cost Analysis; IET 45100 Monetary Analysis for Industrial Decisions; TLI 33400 Economic Analysis for Technology Systems

Minors: Minors are offered through a variety of disciplines. The discipline offering the minor establishes the requirements. A minor is not required.

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 InfoTechnology 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

Updated 04/13/2019

Accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>

Fall 1 st Year	CR	GR	SEM	Fulfilled by	Spring 1 st Year	CR	GR	SEM	Fulfilled by
CNIT 10500 Intro to C Programming	3				ECET 17700 DAQ & Systems Control (P: ENGT 18000 and ENGT 18100)	3			
ENGT 18000 Eng Tech Foundations	3				ECET 17900 Intro to Digital Systems (P: ENGT 18000/18100 and CNIT 105)	3			
ENGT 18100 Eng Tech Applications	1				MA 16020 Applied Calculus II (P: MA 16010 with grade of C-or better)	3			
MA 16010 Applied Calculus I* (P: ALEKS Score of 75%)	3				PHYS 22000 (PHYS-P201*IU) General Physics I*	4			
TECH 12000 Design Thinking in Tech.*	3				Freshman Speech Selective* (SPCH-S121*IU)	3			
English Composition Selective* (ENG-W131*IU)	3								
TOTAL CREDIT HOURS	16				TOTAL CREDIT HOURS	16			

Fall 2 nd Year	CR	GR	SEM	Fulfilled by	Spring 2 nd Year	CR	GR	SEM	Fulfilled by
ECET 22700 DC & Pulse Electronics ^{CC} (P: ECET 17700 and MA 16010)	3				ECET 27000 Electronics Proto Dev/Const (P: ECET 17900, 22700, & 22900)	3			
ECET 22900 Concurrent Digital Systems (P: ENGT 18000/18100)	3				ECET 27400 Wireless Communications (P: ECET 22700, ECET 27000 (or concurrently) and PHYS 22000)	3			
PHYS 22100 (PHYS-P202*IU) General Physics II*(P: PHYS 22000)	4				ECET 27700 AC & Power Electronics (P: ECET 17700 and MA 16010)	3			
General Education Selective**	3				General Education Selective**	3			
Written Communication Selective	3				Oral Communication Selective	3			
TOTAL CREDIT HOURS	16				TOTAL CREDIT HOURS	15			

Fall 3 rd Year	CR	GR	SEM	Fulfilled by	Spring 3 rd Year	CR	GR	SEM	Fulfilled by
ECET 37600 Electrical Energy Sys (P: ECET 27700 and PHYS 22000)	3				ECET 27900 Embedded Digital System ^{CC} (P: ECET 17900) or ECET 27700	3			
ECET 38001 Global Prof Issues in ET (P: Junior Class or higher)	3				ECET Selective	3			
STAT 22500 or STAT 30100 (MATH-K300*IU) Elem Statistical Methods	3				Business Selective**	3			
ECET 33700 Cont. Systems Analysis & Design (P: ECET 27700 & MA 16020) or ECET 33900	3				Technical Selective	3			
ECET Selective	3				Industrial Economics Selective (P: MA 16010)	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
Senior Capstone I – ECET 43000 (P: ECET 27000, ECET 38001, 9 CR of ECET Sel, of which 3 CR can be concurrent)	3				Senior Capstone II – ECET 46000 (P: Senior Capstone Selective I)	3			
ECET Selective	3				ECET Selective	3			
General Education Selective	3				General Education Selective	3			
Technical Selective	3				Free Elective	3			
Technical Selective	3				Global/Intercultural Requirement	0	—		
					Professional Requirement/Internship	0	—		
TOTAL CREDIT HOURS	15				TOTAL CREDIT HOURS	12			

*Fulfills University Core Curriculum requirement. **Human Cultures Behavioral/Social Science for University Core ^{CC} Course is identified as a Critical Course by the faculty.

- 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. Pass/no pass grading allowed for General Education Selectives and Free Elective (up to 15 hrs).
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- Senior Capstone Selective I/II and 12 hours of ECET Selectives must be taken at the Purdue University location conferring the degree.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- Complete the Global / Intercultural Requirement (ungraded) ☐ Complete the Professional Requirement (ungraded) ☐.

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

myPurduePlan is the knowledge source for specific requirements and completion.

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