

Departmental/Program Major Courses (120 credits)

Required Major Courses (34 credits)

- _____ (3) ENGT 18000 - Engineering Technology Foundations
- _____ (1) ENGT 18100 - Engineering Technology Applications
- _____ (3) ECET 17700 - Data Acquisition and Systems Control
- _____ (3) ECET 17900 - Introduction to Digital Systems
- _____ (3) ECET 22700 - DC and Pulse Electronics
- _____ (3) ECET 22900 - Concurrent Digital Systems
- _____ (3) ECET 27000 - Electronics Prototype Development and Construction
- _____ (3) ECET 27400 - Wireless Communications
- _____ (3) ECET 27700 - AC & Power Electronics
- _____ (3) ECET 27900 - Embedded Digital Systems ^{CC (Critical Course)}
- _____ (3) ECET 37600 - Electrical Energy Systems
- _____ (3) ECET 38001 - Global Professional Issues in ET

ECET Selectives – Select the following courses by category (15 credits)

- _____ (3) ECET Advanced Analysis Selective (choose from ECET 33700 or ECET 33900)
- _____ (12) ECET Selectives (choose from list)

ECET Senior Capstone Selectives I and II – (6 credits)

- _____ (3) Senior Capstone I Selective (choose from list)
- _____ (3) Senior Capstone II Selective (choose from list)

Other Departmental/Program Course Requirements (65 credits)

- _____ (3) CNIT 10500 – (***CSCI-C 101** –Computer Programming I) - Introduction to C Programming
- _____ (3) COM 11400 - (***SPCH-S 121** – Public Speaking) - Fundamentals of Speech Communication (*satisfies Oral Communication for core*)
- _____ (3) MA 16010 - Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- _____ (3) MA 16020 - Applied Calculus II
- _____ (4) PHYS 21800 - (***PHYS-P 201 OR 221**) General Physics (*satisfies Science for core*)
- _____ (4) PHYS 21900 - (***PHYS-P 202 OR 222**) General Physics II (*satisfies Science for core*)
- _____ (3) TECH 12000 - Design Thinking in Technology (*satisfies Information Literacy and Science, Technology & Society for core*)
- _____ (3) **TLI 33400 Economic Analysis of Technical Systems**
- _____ (3) English Composition Selective ENGL 10600 or ENGL 10800 (***ENG-W 131**) (*satisfies Written Communication for core*)
- _____ (6) Business Selective and General Education Selective (choose from list, with the requirement that the *Human Cultures: Behavioral/Social Sciences* category for core must be met by either the Business Selective or a General Educ. Selective)
- _____ (3) General Education Human Cultures: Humanities Selective (choose from list)
- _____ (6) General Education Selectives (choose from list)
- _____ (6) Communication Selectives (choose from list)
- _____ (3) Statistics Selective (choose from **STAT 30100** or STAT 22500) – (***MATH-K 310** Statistics Techniques)
- _____ (9) Technical Selectives (choose from list: 9 additional credit hours of *technical courses*, including additional *ECET courses*)
- _____ (3) Free Elective
- _____ (0) **Global/Intercultural Requirement**
- _____ (0) **Professional Requirement**

Choose from list: Refer to the Supplemental Information Sheet for Electrical Engineering Technology (EETC) fall 2017 Plan of Study for a complete list of selectives and requirements.

*** 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.**

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
ENGT 18000 Eng Tech Foundations	3				ECET 17700 DAQ & Systems Control	3			
ENGT 18100 Eng Tech Applications	1				(Prereq: ENGT 1800 & ENGT 18100)				
First Year Composition* – ENG-W 131 (IUSB)	3				ECET 17900 Intro to Digital Systems	3			
CNIT 10500 Intro to C Programming – CSCI-C 101 Computer Program I (IUSB)	3				(Prereq: ENGT 18000/18100 and CNIT 10500/CSCI-C 101)				
COM 11400 Fund of Speech Communication*- SPCH-S 121 (IUSB)	3				MA 16010 Applied Calculus I*	3			
TECH 12000 Design Thinking in Tech.*	3				(Prereq: ALEKS Score of 75%)				
TOTAL CREDIT HOURS	16				General Education Selective	3			
					PHYS 21800 General Physics I* - PHYS-P 221 or 201 (IUSB)	5			
					TOTAL CREDIT HOURS	17			

Fall 2 nd Year	CR	GR	Sem	Fulfilled by	Spring 2 nd Year	CR	GR	Sem	Fulfilled by
MA 16020 Applied Calculus II (Prereq: MA 16010 with grade of C- or better)	3				ECET 27000 Electronics Prototype Dev/Const (Prereq: ECET 17900, ECET 22700, and ECET 22900)	3			
ECET 22700 DC & Pulse Electronics (Prereq: ECET 17700 and MA 16010)	3				ECET 27400 Wireless Communications (Prereq: ECET 22700, ECET 27000 (may be taken concurrently) and PHYS 21900)	3			
ECET 22900 Concurrent Digital Systems (Prereq: ENGT 18000/ENGT 18100)	3				ECET 27700 AC & Power Electronics (Prereqs: ECET 17700 and MA 16010)	3			
PHYS 21900 General Physics II* (Prereq: PHYS 21800) - PHYS-P 222 or 202 (IUSB)	5				ECET 27900 Embedded Digital Systems ^{CC} (Prereq: ECET 17900)	3			
Communication Selective	3				General Education Selective	3			
TOTAL CREDIT HOURS	17				TOTAL CREDIT HOURS	15			

Fall 3 rd Year	CR	GR	Sem	Fulfilled by	Spring 3 rd Year	CR	GR	Sem	Fulfilled by
ECET Selective	3				ECET Selective	3			
ECET 33700 Analog Signal Processing (Prereq: ECET 27700 and MA 16020) or ECET 33900 Digital Signal Processing (Prereq: ECET 27900 and MA 16020)	3				STAT 22500 Intro to Prob Models (Prereq: MA 16020) or STAT 30100 Elem Statistical Methods (prereq: MA 15800)	3			
TLI 33400 Economic Analysis of Technical Systems (Prereq: MA 16020)	3				ECET 37600 Modern Energy Systems (Prereqs: ECET 27700 and PHYS 21800)	3			
Communication Selective	3				ECET 38001 Global Prof Issues in ET (Prereq: Junior Class or higher)	3			
Business Selective**	3				Technical Selective	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 Selective I (Prereq: ECET 27000, ECET 38001, 9 CR of ECET Selectives, of which 3 CR can be concurrent)	3				Senior Capstone Selective II (Prereq: Senior Capstone Selective I)	3			
ECET Selective	3				ECET Selective	3			
General Education Selective	3				Free Elective	3			
Technical Selective	3				General Education Selective	3			
Technical Selective	3				Global / Intercultural Requirement	0			
					Professional Requirement	0			
TOTAL CREDIT HOURS	15				TOTAL CREDIT HOURS	12			

Refer to the Supplemental Information Sheet for Electrical Engineering Technology Fall 2017 Plan of Study for a complete list of selectives and requirements.

*Fulfills University Core Curriculum requirement. **Human Cultures Behavioral/Social Science for University Core may be selected to satisfy either the Business Selective or a General Education Selective requirement. ^{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.
- 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 the Purdue location conferring the degree.
- 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.

Supplemental Information Sheet for Electrical Engineering Technology (EETC) Fall 2017 Plan of Study

BOLD indicates courses offered at the South Bend location.

*****Indicates approved IUSB course for South Bend location.

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 33700 Analog Signal Processing
ECET 33900 Digital Signal Processing
ECET 34900 Advanced Digital Systems
ECET 38800 Analog IC Applications
ECET 42800 Audio Electronics-Selected Topics

Communications

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

Computer/Digital

ECET 32900 Adv Embedded Digital Systems
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

Smart Living

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

Smart Environment

ECET 30201 Introduction to Industrial Controls
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 Control

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
ECET 38501 Intro to Auto Electronics & ECET 38502 (lab)

Study Abroad/Professional Practice

ECET 49900 Sustainable Energy Technologies
ECET Co-op Sessions 4 and 5

Advanced Analysis Selective (3 hours): ECET 33700 Analog Signal Processing or ECET 33900 Digital Signal Processing.

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

- **ECET 43000** Product/Project Management **and ECET 46000** Project Design and Development
- ECET 43100 International Capstone Plan **and ECET 46100** International Capstone Project Execution

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

- **ECET:** ECET 29900 is 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:** CNIT 13600 **& 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 and CS 23500 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.

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

- **Written communication** (3 hours): ENGL 20500 Introduction to Creative Writing; ENGL 30400 Advanced Composition; ENGL 42000 Business Writing; **ENGL 42100 Technical Writing; *ENG-W 203 Creative Writing (IUSB); *ENG-W 231 Prof. Writing Skills (IUSB); *ENG-W232 Intro to Business Writing (IUSB)**
- **Oral communication** (3 hours): Any communications (COM) course at the 200 level or higher. ***SPCH-S courses (IUSB)**

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. ***BUS-A 201 Intro to Financial Accounting (IUSB); BUS-L 201 Legal Environment of Business (IUSB)**
- Or select one of the following courses:

AGEC 20300 Int to Microecon for Food & Agribus (BSS)
AGEC 20400 Intro to Resource Economics and Environmental Policy (BSS)
AGEC 21700 Economics (BSS)
AGEC 25000 The Economic Geography of World Food and Resources (BSS)
CSR 34200 Personal Finance
ECON 21000 Principles of Economics (BSS)
ECON 25100 Microeconomics (BSS)
ECON 25200 Macroeconomics (BSS)
***ECON-E 103 Microeconomics (IUSB) (BSS)**
***ECON-E 104 Microeconomics (IUSB) (BSS)**
IT 10400 Industrial Organizations **OR TLI 11100 Intro to Manufacturing & Supply Chain Systems**
IT 23000 Industrial Supply Chain Mgmt **OR TLI 21400 Intro to Supply Chain Management Tech.**

IT 33000 Industrial Sales & Sales Mgmt OR TLI 34300 Technical & Service Selling
IT 33200 Purchasing, Inventory & Warehouse OR TLI 34200 Warehouse & Inventory Mngt.
OLS 25200 Human Relations in Org **OR TLI 11200 Found of Organizational Leadership**
OLS 27400 Applied Leadership
OLS 28400 Leadership Principles
OLS 32500 Meeting Management
TLI 21300 Project Management
TLI 15200 Business Prin for Org Leadership
TLI 34250 Purchasing and Contract Mgmt

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>).
- 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.

Within this framework, the student may select courses from the following subject area (discipline):

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

African American Studies (AAS)	Bands (BAND)	Interdisciplinary Studies (IDIS)	Religious Studies (REL)
Art and Design (AD),	Classics (CLCS)	Linguistics (LING)	Sociology (SOC)
American Studies (AMST)	Comparative Literature (CMPL)	Music History and Theory (MUS)	Theater (THTR)
Anthropology (ANTH)	Communication (COM)	Philosophy (PHIL)	Women’s Studies (WOST)
Asian American Studies (ASAM)	English (ENGL) or ENG-W (IUSB)	Political Science (POL)	ROTC (AFT, MILT, NS)
American Sign Language (ASL)	History (HIST)	Psychology (PSY)	

- One course must be selected from the UCC approved list of Human Culture: Humanities (<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>

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|---|---|
| *HIST-H 105 American History I | *HIST-H 114 History of Western Civilization 2 |
| *HIST-H 106 American History II | *MUS-M 17400 Music for the Listener |
| *HIST-H 113 History of Western Civilization 1 | *PHIL-P 110 Introduction to Philosophy |

- One course must be selected 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 indicated with a BSS to satisfy the Business Selective requirement.

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>

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|---|---------------------------------------|
| *ECON-E 103 Introduction to Microeconomics | *PSY-P 103 Introduction to Psychology |
| *ECON-E 104 Introduction to Macroeconomics | *SOC-S 161 Principles of Sociology |
| *POLS-Y 103 Introduction to American Politics | *SOC-S 163 Social Problems |
| *POLS-Y 109 Introduction to International Relations | |

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

Upper-level courses: At least 32 hours of upper level (300 level or higher) must be completed at Purdue University; ECET Senior Capstone I and II Selectives and at least 12 hours of ECET Selectives must be completed at the Purdue University location conferring the degree.

Completing the Global/Intercultural 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).

School of Engineering Technology (Polytechnic) Growth Plan for Global Awareness & Intercultural Competency

Intercultural Growth Plan	Developmental Level Competency
Assessment	<ul style="list-style-type: none"> ___ Complete the Pre- and Post-Intercultural Development Inventory Assessments (1st year and 4th year) ___ Complete the pre- and post- BEVI (1st and 4th years)
	<ul style="list-style-type: none"> ___ Complete one of the following Intercultural Knowledge and Effectiveness components below: (This list will be reviewed and updated each year) • Crosswalk Commons (residential living Experience for a minimum of one semester) • Serve as a BGRI Program leader • PUPIL (Purdue University Passport to Intercultural Learning) (Obtain at least two badges) • Participate in two (2) Boiler Out Program Activities • Participate in Host-a-Boiler
	<ul style="list-style-type: none"> ___ Complete one of the following: • An international project or collaborative project, or • An international internship, or • A Faculty-led Study Abroad program, or • Three credit hours of courses** from the Polytechnic list of approved or recommended Global/Intercultural courses. **Must be in a category other than Increasing Self-awareness

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.

Potential 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