

**Departmental/Program Major Courses (120 credits)**

**Required Major Courses (34 credits)**

- \_\_\_\_\_ (3) ECET 12000 - Gateway to EET
- \_\_\_\_\_ (3) ECET 17700 - Data Acquisition and Systems Control
- \_\_\_\_\_ (3) ECET 17900 - Introduction to Digital Systems
- \_\_\_\_\_ (1) ECET 22000 - Professional Career Development
- \_\_\_\_\_ (3) ECET 22700 - DC and Pulse Electronics
- \_\_\_\_\_ (3) ECET 22900 - Concurrent Digital Systems
- \_\_\_\_\_ (3) ECET 27000 - Electronics Prototype Development and Construction
- \_\_\_\_\_ (3) ECET 27300 - Modern Energy Systems
- \_\_\_\_\_ (3) ECET 27400 - Wireless Communications
- \_\_\_\_\_ (3) ECET 38001 - Global Professional Issues in ET
- \_\_\_\_\_ (3) ECET 43000 - Electrical & Electronic Product & Program Management
- \_\_\_\_\_ (3) ECET 46000 - Project Design & Development

**ECET Selectives – Select six of the following courses by category (18 credits)**

- \_\_\_\_\_ (3) ECET Sophomore Selective (choose from ECET 27700 or ECET 27900)
- \_\_\_\_\_ (3) ECET Advanced Analysis Selective (choose from ECET 33500, ECET 33700, ECET 33900)
- \_\_\_\_\_ (12) ECET Selectives <https://tech.purdue.edu/sites/default/files/EET-fall-2014.pdf>

**Other Departmental/Program Course Requirements (68 credits)**

- \_\_\_\_\_ (3) CNIT 10500 (CSCI-C105\*IU) - Introduction to C Programming
- \_\_\_\_\_ (3) COM 11400 (SPCH-S121\*IU) - Fundamentals of Speech Communication (*satisfies Oral Communication for core*)
- \_\_\_\_\_ (3) MA 16010 - Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- \_\_\_\_\_ (3) MA 16021 - Applied Calculus II and Differential Equations
- \_\_\_\_\_ (4) PHYS 21800 (or PHYS-P201\*IU) - General Physics (*satisfies Science for core*)
- \_\_\_\_\_ (4) PHYS 21900 (or PHYS-P202\*IU) - General Physics II (*satisfies Science for core*)
- \_\_\_\_\_ (3) TECH 12000 - Design Thinking in Technology (*satisfies Information Literacy and Science, Technology & Society for core*)
- \_\_\_\_\_ (3) English Composition Selective (ENG-W131\*IU) (*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) Industrial Economics Selective (choose from IET 45100 or IT 45000 )
- \_\_\_\_\_ (3) Statistics Selective (MATH-K300\*IU)
- \_\_\_\_\_ (12) Technical Selectives (choose 4 additional *technical courses*, two of which can be *ECET Selectives*)
- \_\_\_\_\_ (3) Free Elective

**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"/>	_____			

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

**myPurduePlan is the knowledge source for specific requirements and completion.**

Fall 1 <sup>st</sup> Year	CR	GR	Sem	Fulfilled by	Spring 1 <sup>st</sup> Year	CR	GR	Sem	Fulfilled by
ECET 12000 Gateway to EET	3				ECET 17700 DAQ & Systems Control (Prereq: ECET 12000)	3			
English Comp Selective* (ENG-W131*IU)	3				ECET 17900 Intro to Digital Systems (Prereq: ECET 12000 and CNIT 10500)	3			
CNIT 10500 Intro to C Programming (CSCI-C105*IU)	3				COM 11400 Fund of Speech Communication* (SPCH-S121*IU)	3			
MA 16010 Applied Calculus I* (Prereq: ALEKS Score of 75%)	3				MA 16021 Applied Calculus II with Diff Eqns* (Prereq: MA 16010 with grade of C-or better)	3			
TECH 12000 Design Thinking in Tech.*	3				General Education Selective**	3			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

Fall 2 <sup>nd</sup> Year	CR	GR	Sem	Fulfilled by	Spring 2 <sup>nd</sup> Year	CR	GR	Sem	Fulfilled by
ECET 22000 Prof Career Development	1				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 (taken concurrently))	3			
ECET 22900 Concurrent Digital Systems (Prereq: ECET 12000)	3				ECET 27700 AC & Power Electronics (Prereq: ECET 17700 and MA 16010) <b>or</b> ECET 27900 Embedded Digital Systems (Prereq: ECET 17900)	3			
ECET 27300 Modern Energy Systems (Prereq: ECET 12000 and PHYS 21800)	3								
PHYS 21800 General Physics I*(PHYS-P201*IU)	5				Communication Selective (ENG-W234*IU)	3			
					PHYS 21900 General Physics II* (PHYS-P202*IU) (Prereq: PHYS 21800)	5			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>17</b>			

Fall 3 <sup>rd</sup> Year	CR	GR	Sem	Fulfilled by	Spring 3 <sup>rd</sup> Year	CR	GR	Sem	Fulfilled by
ECET 33700 Analog Signal Processing <sup>AAS</sup> (Prereq: ECET 27700 and MA 16021) <b>or</b> ECET 33900 Digital Signal Processing <sup>AAS</sup> (Prereq: ECET 27900 and MA 16021)	3				ECET 33500 Comp Arch & Perform Eval <sup>AAS</sup> (Prereq: ECET 27900 and MA 16021) <b>or</b> ECET Selective	3			
ECET Selective	3				ECET 38001 Global Professional Issues in EET (Prereq: Junior Classification or higher)	3			
STAT 30100 (MATH-K300*IU) Elem Statistical Methods	3				IET 45100 Monetary Analysis for Ind Dec <b>or</b> IT 45000 Production Cost Analysis	3			
Communication Selective (*SPCH-S229)	3				General Education Selective	3			
Business Selective**	3				Technical Selective	3			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

Fall 4 <sup>th</sup> Year	CR	GR	Sem	Fulfilled by	Spring 4 <sup>th</sup> Year	CR	GR	Sem	Fulfilled by
ECET 43000 Elec Product & Prog Mgmt (Prereq: ECET 27000, ECET 38001, 9 CR of ECET Selectives, of which 3 CR can be concurrent)	3				ECET 46000 Project Design and Development (Prereq: ECET 43000)	3			
ECET Selective	3				ECET Selective	3			
General Education Selective	3				Free Elective	3			
Technical Selective	3				General Education Selective	3			
Technical Selective	3				Technical Selective	3			
<b>TOTAL CREDIT HOURS</b>	<b>15</b>				<b>TOTAL CREDIT HOURS</b>	<b>15</b>			

\*Fulfills University Core Curriculum requirement. <sup>AAS</sup>Advanced Analysis Selective: may be taken in either the Fall or Spring semester, depending on course selected.

\*\* University Core Curriculum *Human Cultures Behavioral/Social Science* may be selected to satisfy either the Business Selective or a General Education Selective requirement.

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
2. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
3. ECET 43000, ECET 46000 and 12 hours of ECET Selectives must be taken at the Purdue University location conferring the degree.
4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

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\*\*\*\*\* Updated 3/31/2015

## Supplemental EET Information Fall 2015 Plan of Study

All prerequisites must be met.

**Bold indicates courses offered at New Albany Campus.**

- **Indicates IU Southeast course for New Albany Campus only (See Student Services Coordinator 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.

### **Audio**

#### **ECET 33700 Analog Signal Processing**

ECET 33900 Digital Signal Processing  
ECET 38800 Analog IC Applications  
ECET 42800 Audio Electronics-Selected Topics

### **Communications**

#### **ECET 36400 Fundamentals of Electromagnetics**

ECET 37401 Digital Communication Systems  
ECET 44400 Wireless Systems: Design & Meas  
ECET 48400 Digital Wireless Systems

### **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  
ECET 34100 Bio-compatibility and Bioissues

### **Smart Environment**

#### **ECET 30201 Introduction to Industrial Controls**

ECET 32700 Instrumentation and DAQ Design

#### **ECET 37200 Process Control**

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

### **Study Abroad/Professional Practice**

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

**Advanced Analysis Selective** (3 hours): Choose one of the following courses in addition to the ECET Selectives: ECET 33500 Computer Architecture and Performance Evaluation, **ECET 33700 Analog Signal Processing**, or ECET 33900 Digital Signal Processing.

**Technical Selectives** (12 hours): Choose courses from the following categories with no more than 6 hours at the 100 level. To ensure breadth, students may take no more than 6 hours in any one subject area. Certain courses or areas are limited to 3 hours or cannot be used, as noted below.

- **ECET:** up to 6 hours additional ECET courses. ECET 29900 is limited to 3 credit hours.
- **College of Engineering:** up to 6 hours per subject area (discipline). ME 29700 and Engineering Projects in Community Service (EPICS) are each limited to 3 credit hours. First-Year Engineering (ENGR) courses cannot be used.
- **College of Technology:** up to 6 hours per subject area (discipline). ECET Co-op Sessions 1, 2 and 3. CNIT 136 cannot be used. (**\*OLS, IT, MET, CGT**)
- **College of Science:** up to 6 hours per subject area (discipline) of 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. (**\*BIOL, CSCI, CHEM**)
- **College of Liberal Arts:** Up to 6 hours of THTR 25300, THTR 35300, or THTR 55300. (**\*MUS-A101, MUS-A301**)

**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-W234**)
- **Oral communication** (3 hours): Any communications (COM) course at the 200 level or higher. (**\*SPCH-S229**)

**Business Selective** (3 hours): Select one of the following:

- 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. (**\*ECON-E101**)
- 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-A201**)
- 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 (**\*BUS-F260**)  
ECON 21000 Principles of Economics (BSS)  
ECON 25100 Microeconomics (BSS)  
ECON 25200 Macroeconomics (BSS)  
**IT 10400 Industrial Organizations**  
**IT 23000 Industrial Supply Chain Mgmt**

IT 33000 Industrial Sales & Sales Mgmt  
**IT 33200 Purchasing, Inventory & Warehouse**  
**OLS 25200 Human Relations in Org**  
**OLS 27400 Applied Leadership**  
**OLS 28400 Leadership Principles**  
**OLS 32500 Meeting Management**

Courses that will satisfy the University Core Curriculum Human Cultures Behavior/Social Sciences (BSS) requirement are indicated with a BSS.

**General Education Selectives** (12 hours). Select 12 hours in one or more of the subject area (discipline) listed below, with a limit of 6 hours in any one discipline; foreign languages are limited to 12 hours.

- One course must be selected from the UCC approved list of Human Culture: Humanities (<http://www.purdue.edu/provost/initiatives/curriculum/course.html>). **\* ENG-L104, FINA-F100, HIST-H105, HIST-H106, MUS-M174**
- 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 for to satisfy the Business Selective requirement.  
**\* POLS-Y103, SOC-S163**

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)	Anthropology (ANTH)	Bands (BAND)	Communication (COM)
Art and Design (AD),	Asian American Studies (ASAM)	Classics (CLCS)	English (ENGL),
American Studies (AMST)	American Sign Language (ASL)	Comparative Literature (CMPL)	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 (WOST)  
ROTC (AFT, MILT, NS)

**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 430, ECET 460 and at least 12 hours of ECET Selectives must be completed at the Purdue University location conferring the degree.

*Updated 3/31/2015*