

Elec Engr Tech BS

IU Indianapolis School of Engr & Tech (TECH)

[Career Options](#) | [Financial Aid Options](#)

Student's Catalog Year: Fall 2016–Summer 2017
Total Degree Map Credits: 120

Description: An Electrical Engineering Technology Bachelors of Science degree prepares students to solve problems using electrical systems. We apply relevant technologies to address immediate needs both large and small. At IUPUI, we have special expertise in sustainable energy and automation. EET places emphasis on class and laboratory work focused on applications. The focus is on learning theories of how things work in addition to applying those theories in meaningful ways. Our curriculum includes many projects, culminating in a two semester capstone experience. These projects prepare students to effectively manage large assignments when they get into the real world including industries such as industrial controls, power, and systems integration.

C Critical Courses: Courses that students should complete by specific points during their degree or certificate program.

M Milestones: Conditions or activities that students should complete by specific points during their degree or certificate program.

Completing a critical course or milestone by the associated term is considered crucial to on-time graduation.

Year One (32 credits)				
Fall Term	Minimum Grade	Credits		
First Year Seminar for Technology Majors		1		
Required Semester of Completion: Year 1, Fall				
Technical Graphics Communication		3		
Required Semester of Completion: Year 4, Spring				
Intro to Engineering Technology	C	3		
Critical Course Course Details: P or C: MATH 11100 AND ENG-W 131 Required Semester of Completion: Year 1, Fall				
Digital Fundamentals	C	3		
Spring Term	Minimum Grade	Credits		
Introduction to Circuit Analysis	C	4		
Critical Course Course Details: P: TECH 10500 AND P or C: MATH 15300 Required Semester of Completion: Year 1, Spring				
Digital Fundamentals II	C	3		
Critical Course Course Details: P: ECET 10900 Required Semester of Completion: Year 4, Spring				
Fundamentals of Speech Communication	C	3		
Course Details: Also meets Gen Ed Core Communication & Speaking & Listening Competency Required Semester of Completion: Year 1, Spring				

Critical Course Course Details: P or C: MATH 11100 Required Semester of Completion: Year 1, Fall			
Reading, Writing, and Inquiry	C	3	^
Course Details: Also meets Gen Ed Core Communication Writing Competency Required Semester of Completion: Year 1, Spring			
Gen Ed Arts & Humanities Competency		3	^
Course Details: Students must select a course from IUPUI's Arts and Humanities Course list. Required Semester of Completion: Year 4, Spring			
Total		16	

Gen Ed Cultural Understanding Competency		3	^
Course Details: Students must select a course from IUPUI's Cultural Understanding course list. Required Semester of Completion: Year 4, Spring			
Calculus for Technology I	C	3	^
Course Details: Also meets Gen Ed Analytical Reasoning (Math) P: MATH 15900 OR P: MATH 15300 and MATH 15400 all with grades of C or better Required Semester of Completion: Year 1, Spring			
Students should finish ENG-W 131 and COMM-R 110 before the end of the spring semester of their first year. M			^
Required Semester of Completion: Year 1, Spring			
Total		16	

Year Two (30 credits)

Fall Term	Minimum Grade	Credits	^
Electronics Circuit Analysis C	C	4	^
Critical Course Course Details: P: ECET 10700 AND MATH 15300 AND C: TCM 21800 Required Semester of Completion: Year 2, Spring			
Intro to Engr Technical Reports C		1	^
Critical Course Course Details: C: Must be taken with ECET 15700. AND P: ENG-W 131 Required Semester of Completion: Year 2, Fall			
Applied Object Oriented Programming C	C	3	^
Critical Course Course Details: P or C: MATH 15300 Required Semester of Completion: Year 2, Spring			
General Physics	C	4	^
Course Details: Also meets Gen Ed Life & Physical Sciences Competency Required Semester of Completion: Year 4, Spring			
Calculus for Technology II C	C	3	^

Spring Term	Minimum Grade	Credits	^
AC Electronics Circuit Analys C	C	4	^
Critical Course Course Details: P or C: ECET 15700 AND MATH 15400 Required Semester of Completion: Year 3, Spring			
Computer Communications C		4	^
Critical Course Course Details: C: Must be taken with TCM 21900 P: ECET 10700 Required Semester of Completion: Year 4, Spring			
Intro to Technical Presentations C		1	^
Critical Course Course Details: C: Must be taken with ECET 28400 AND P: COMM-R 110 Required Semester of Completion: Year 4, Spring			
Electrical Machines C	C	3	^
Critical Course Course Details: ECET 23110 (3 cr.) P: ECET 10900 AND ECET 15700 AND P or C: PHYS 21800 Required Semester of Completion: Year 4, Spring			

Critical Course

Course Details: Also meets Gen Ed Analytical Reasoning (Other) P: MATH 22100 with a grade of C or better

Required Semester of Completion: Year 4, Spring

Student should be completed with all first year requirements and have been admitted to the academic department. **M**

Required Semester of Completion: Year 2, Fall

Total 15

MATH/Technical Selective

3

Course Details: Students must select from the approved MATH/Technical Selective List.

Required Semester of Completion: Year 4, Spring

Total 15

Year Three (31 credits)

Fall Term

Minimum
Grade

Credits

Introduction to Microprocessors **C**

C

4

Critical Course

Course Details: C: Must be taken with TCM 22200 P: ECET 10900 AND P: ECET 16400 or CIT 26200 or CIT 27000

Required Semester of Completion: Year 4, Spring

Intro to Technical Documentation **C**

1

Critical Course

Course Details: C: Must be taken with ECET 20900.

Required Semester of Completion: Year 3, Fall

Industrial Controls **C**

C

3

Critical Course

Course Details: ECET 23120 (3 cr.) P: ECET 10900 AND ECET 15700 AND P or C: PHYS 21800

Required Semester of Completion: Year 4, Spring

ECET Elective

3

Course Details: Students must select classes from the approved list of ECET Electives

Required Semester of Completion: Year 4, Spring

Quantitative Methods for Technology

3

Required Semester of Completion: Year 4, Spring

Spring Term

Minimum
Grade

Credits

Analog Network Signal Processing

4

Course Details: P: ECET 20700 AND MATH 22100

Required Semester of Completion: Year 4, Spring

ECET Elective

3

Course Details: Students must select classes from the approved list of ECET Electives

Required Semester of Completion: Year 4, Spring

ECET Elective

3

Course Details: Students must select classes from the approved list of ECET Electives

Required Semester of Completion: Year 4, Spring

Ethics & Professionalism in Tech

1

Required Semester of Completion: Year 4, Spring

Engineering Economics

3

Required Semester of Completion: Year 4, Spring

General Education Social Sciences Competency

3

Course Details: Students must select a course from IUPUI's Social Science course list.

Required Semester of Completion: Year 4, Spring

Student should have completed all math requirements (through MATH 22200) prior to this semester.

M

Required Semester of Completion: Year 3, Fall

Total 14

Student should complete 3 300/400 level ECET electives by the end of the Spring of the Third Year so that the student can begin ECET 49000 during the Fall semester of the Fourth Year.

M

Required Semester of Completion: Year 4, Spring

Total 17

Year Four (27 credits)

Fall Term	Minimum Grade	Credits	▼	Spring Term	Minimum Grade	Credits	▼
ECET Elective		3	^	ECET Elective		3	^
Course Details: Students must select classes from the approved list of ECET Electives				Course Details: Students must select classes from the approved list of ECET Electives			
Required Semester of Completion: Year 4, Spring				Required Semester of Completion: Year 4, Spring			
Senior Design Project Phase I		1	^	Senior Design Project Phase II		2	^
Course Details: C: Must be taken with TCM 41700 P: Completion of 3 ECET 3/400 level ECET Electives.				Course Details: C: Must be taken with TCM 41700 P: ECET 49000			
Required Semester of Completion: Year 4, Spring				Required Semester of Completion: Year 4, Spring			
Intermediate Technical Communication for Design		1	^	Advanced Technical Communication for Design		1	^
Course Details: C: Must be taken with ECET 49000				Course Details: Must be taken with ECET 49100			
Required Semester of Completion: Year 4, Spring				Required Semester of Completion: Year 4, Spring			
Elementary Chemistry I		3	^	TECH Elective		3	^
Course Details: Also meets Gen Ed Life & Physical Sciences Competency				Course Details: Students must select class from the approved TECH Elective List			
Required Semester of Completion: Year 4, Spring				Required Semester of Completion: Year 4, Spring			
Total Quality Control		3	^	Sustainability Elective		3	^
Required Semester of Completion: Year 4, Spring				Course Details: Students must select class from the approved list			
Required Semester of Completion: Year 4, Spring				Required Semester of Completion: Year 4, Spring			
Bus Administration: Intro		3	^	Senior Seminar for ET		1	^
Course Details: Also meets Gen Ed Social Sciences Competency				Required Semester of Completion: Year 4, Spring			
Required Semester of Completion: Year 4, Spring							
Notify School of Intent to Graduate M			^	Total 13			

Milestone Details: Please contact your school to determine appropriate steps necessary to apply for graduation.

Required Semester of Completion: Year 4, Fall

Total 14

Degree Map Link:

<https://sisjee.iu.edu/sisigps-prd/web/igps/dm/public/maps/view?mapId=3186d871-02e2-471f-8c54-98e8f0ffa4ab>

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Achieving minimum grades for individual courses may not result in meeting cumulative GPA requirements for admission to programs or for graduation. Verify requirements with your academic advisor or your Academic Advisement Report (AAR).

Completing 30 credit hours each calendar year is required for full state financial aid eligibility. Be sure to complete your FAFSA before March 10 each year. If you follow your map and find a course unavailable, you may be eligible to take that course for free in a future semester.

[More information about the free course guarantee.](#)