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Elec Engr Tech BS

IU Indianapolis School of Engr & Tech (TECH)

Career Options ↗ | Financial Aid Options ↗

Student's Catalog Year: Fall 2022–Summer 2024
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	
TECH 10200 - First Year Seminar for Technology Majors		1	∧
Required Semester of Completion: Year 1, Fall			
TECH 10500 - Intro to Engineering Technology **C**	C	3	∧
Critical Course **Course Details:** P or C: MATH 11100 AND ENG-W 131 **Required Semester of Completion:** Year 1, Fall			
ECET 10900 - Digital Fundamentals **C**	C	3	∧
Critical Course **Course Details:** P or C: MATH 11100 **Required Semester of Completion:** Year 1, Fall			
MET 10400 - Technical Graphics Communication		3	∧

Spring Term	Minimum Grade	Credits	
ECET 10700 - Introduction to Circuit Analysis **C**	C	4	∧
Critical Course **Course Details:** P: TECH 10500 AND P or C: MATH 15300 **Required Semester of Completion:** Year 1, Spring			
ECET 15500 - Digital Fundamentals II **C**	C	3	∧
Critical Course **Course Details:** P: ECET 10900 **Required Semester of Completion:** Year 4, Spring			
COMM-R 110 - Fundamentals of Speech Communication	C	3	∧
Course Details: Also meets the General Education Speaking & Listening Competency **Required Semester of Completion:** Year 1, Spring			

Required Semester of Completion: Year 4, Spring

	Minimum Grade	Credits	
ENG-W 131 - Reading, Writing, and Inquiry	C	3	∧

Course Details: Also meets Gen Ed Core Communication Writing Competency
Required Semester of Completion: Year 1, Spring

		Credits	
Arts and Humanities Elective		3	∧

Course Details: Also meet the General Education Arts and Humanities Competency
Required Semester of Completion: Year 4, Spring

	Total	**16**	

	Minimum Grade	Credits	
MATH 22100 - 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 complete in the last 3 semesters.
Required Semester of Completion: Year 1, Spring

		Credits	
Cultural Understanding Elective		3	∧

Course Details: Also meets the General Education Cultural Understanding Competency
Required Semester of Completion: Year 4, 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	⌄
ECET 15700 - 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

TCM 21800 - 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

ECET 16400 - Applied Object Oriented Programming [C]	C	3	∧

Critical Course
Course Details: P or C: MATH 15300
Required Semester of Completion: Year 2, Spring

PHYS 21800 - General Physics	C	4	∧

Spring Term	Minimum Grade	Credits	⌄
ECET 20700 - 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

ECET 23110 - Electrical Machines [C]	C	3	∧

Critical Course
Course Details: P: ECET 10900 AND ECET 15700 AND P or C: PHYS 21800
Required Semester of Completion: Year 4, Spring

ECET 28404 - Contemporary Communication Systems [C]		4	∧

Critical Course
Course Details: C: Must be taken with TCM 21900 P: ECET 10700
Required Semester of Completion: Year 4, Spring

TCM 21900 - Intro to Technical Presentations [C]		1	∧

Course Details: Also meets the General Education Life & Physical Sciences Competency
Required Semester of Completion: Year 4, Spring

MATH 22200 - Calculus for Technology II **C**	C	3	∧

Critical Course
Course Details: Also meets Gen Ed Analytical Reasoning (Other) P: MATH 22100 with a grade of C or better in the last 3 semesters.
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**

Critical Course
Course Details: C: Must be taken with ECET 28400 AND P: COMM-R 110
Required Semester of Completion: Year 4, Spring

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	⌄
ECET 20900 - 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

TCM 22200 - Intro to Technical Documentation **C**		1	∧

Critical Course
Course Details: C: Must be taken with ECET 20900.
Required Semester of Completion: Year 3, Fall

ECET 23120 - Industrial Controls **C**	C	3	∧

Critical Course
Course Details: 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

Spring Term	Minimum Grade	Credits	⌄
ECET 30700 - Analog Network Signal Processing		4	∧

Course Details: P: ECET 20700 AND MATH 22100
Required Semester of Completion: Year 4, Spring

ECET 49300 - Ethics & Professionalism in Tech	1	∧

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

IET 35000 - Engineering Economics	3	∧

Required Semester of Completion: Year 4, Spring

Social Sciences Elective	3	∧

IET 15000 - Quantitative Methods for Technology	3	∧
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**

Course Details: Also meets the General Education Social Science Competency **Required Semester of Completion:** Year 4, Spring	

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	

Civics Literacy Requirement Reminder **M**	∧
Milestone Details: In June 2021, the Purdue University Board of Trustees adopted a civics literacy graduation requirement for undergraduates, including all transfer students, to enhance the educational experience of students and to graduate a more informed citizenry. Students admitted to an IUPUI Purdue program beginning Fall 2022 must complete this requirement. You can see the full details of this requirement at http://due.iupui.edu/civics-literacy **Required Semester of Completion:** Year 3, Spring	

	Total	**17**

Year Four
(27 credits)

Fall Term	Minimum Grade	Credits	⌄
ECET 49000 - Senior Design Project Phase I		1	∧
Course Details: C: Must be taken with TCM 41700 P: Completion of 3 ECET 3/400 level ECET Electives. **Required Semester of Completion:** Year 4, Spring			
TCM 41500 - Intermediate Technical Communication for Design		1	∧
Course Details: C: Must be taken with ECET 49000 **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			
IET 36400 - Total Quality Control		3	∧

Spring Term	Minimum Grade	Credits	⌄
ECET 49100 - Senior Design Project Phase II		2	∧
Course Details: C: Must be taken with TCM 41700 P: ECET 49000 **Required Semester of Completion:** Year 4, Spring			
TCM 49900 - Advanced Technical Communication for Design		1	∧
Course Details: Must be taken with ECET 49100 **Required Semester of Completion:** Year 4, Spring			
TECH 49100 - Senior Seminar for ET		1	∧
Required Semester of Completion: Year 4, Spring			
ECET Elective		3	∧

Required Semester of Completion: Year 4, Spring

CHEM-C 101 - Elementary Chemistry I	3	∧

Course Details: Also meets Gen Ed Life & Physical Sciences Competency
Required Semester of Completion: Year 4, Spring

BUS-X 100 - Bus Adminstration: Intro	3	∧

Course Details: Also meets Gen Ed Social Sciences Competency
Required Semester of Completion: Year 4, Spring

Notify School of Intent to Graduate [M]		∧

Milestone Details: Please contact your school to determine appropriate steps necessary to apply for graduation.
Required Semester of Completion: Year 4, Fall

	Total	**14**

Course Details: Students must select classes from the approved list of ECET Electives
Required Semester of Completion: Year 4, Spring

TECH Elective	3	∧

Course Details: Students must select class from the approved TECH Elective List
Required Semester of Completion: Year 4, Spring

Sustainability Elective	3	∧

Course Details: Students must select class from the approved list
Required Semester of Completion: Year 4, Spring

	Total	**13**

Degree Map Link:

https://sisjee.iu.edu/sisigps-prd/web/igps/dm/public/maps/view?mapId=37f0b726-3cbc-4b6b-86f9-3c91f0a55b26   Copy