



# Elec Engr Tech BS

IU Indianapolis School of Engr & Tech (TECH)

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**Student's Catalog Year:** Fall 2014–Summer 2015

**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	Spring Term	Minimum Grade	Credits
Discovering Technology		1	Introduction to Circuit Analysis		4
<b>Required Semester of Completion:</b> Year 1, Fall			<b>C Critical Course</b>		
Technical Graphics Communication		3	<b>Required Semester of Completion:</b> Year 1, Spring		
<b>Required Semester of Completion:</b> Year 4, Spring			Digital Fundamentals II		3
Intro to Engineering Technology		3	<b>C Critical Course</b>		
<b>Critical Course</b>			<b>Required Semester of Completion:</b> Year 4, Spring		
<b>Required Semester of Completion:</b> Year 1, Fall			Fundamentals of Speech Communication		3
Digital Fundamentals		3	<b>Course Details:</b> Also meets Gen Ed Core Communication _ Speaking & Listening Competency		
<b>Critical Course</b>			<b>Required Semester of Completion:</b> Year 4, Spring		
<b>Required Semester of Completion:</b> Year 1, Fall			Gen Ed Cultural Understanding Competency		3
Reading, Writing, and Inquiry		3			

<b>Course Details:</b> Also meets Gen Ed Core Communication _ Writing Competency <b>Required Semester of Completion:</b> Year 4, Spring		
Gen Ed Arts & Humanities Competency	3	^
<b>Course Details:</b> Students must select a course from IUPUI's Arts and Humanities Course list. <b>Required Semester of Completion:</b> Year 4, Spring		
<b>Total</b>		<b>16</b>

<b>Course Details:</b> Students must select a course from IUPUI's Cultural Understanding course list. <b>Required Semester of Completion:</b> Year 4, Spring			
Calculus for Technology I	C	3	^
<b>Course Details:</b> Also meets Gen Ed Analytical Reasoning (Math) <b>Required Semester of Completion:</b> Year 1, Spring			
<b>Total</b>			<b>16</b>

## Year Two (29 credits)

Fall Term	Minimum Grade	Credits	^
Electronics Circuit Analysis <span style="background-color: red; color: white; padding: 0 2px;">c</span>		4	^
<b>Critical Course</b> <b>Required Semester of Completion:</b> Year 2, Spring			
Applied Object Oriented Programming <span style="background-color: red; color: white; padding: 0 2px;">c</span>		3	^
<b>Critical Course</b> <b>Required Semester of Completion:</b> Year 2, Spring			
Quantitative Methods for Technology		3	^
<b>Required Semester of Completion:</b> Year 4, Spring			
Calculus for Technology II		3	^
<b>Course Details:</b> Also meets Gen Ed Analytical Reasoning (Other) <b>Required Semester of Completion:</b> Year 4, Spring			
<b>Total</b>		<b>13</b>	

Spring Term	Minimum Grade	Credits	^
AC Electronics Circuit Analys <span style="background-color: red; color: white; padding: 0 2px;">c</span>		4	^
<b>Critical Course</b> <b>Required Semester of Completion:</b> Year 3, Spring			
Computer Communications <span style="background-color: red; color: white; padding: 0 2px;">c</span>		4	^
<b>Critical Course</b> <b>Course Details:</b> Must be taken with TCM 2xx00(Oral Technical Presentation) <b>Required Semester of Completion:</b> Year 4, Spring			
Intro to Technical Presentations <span style="background-color: red; color: white; padding: 0 2px;">c</span>		1	^
<b>Critical Course</b> <b>Course Details:</b> Must be taken with ECET 28400. <b>Required Semester of Completion:</b> Year 4, Spring			
Electrical Power and Controls <span style="background-color: red; color: white; padding: 0 2px;">c</span>		4	^
<b>Critical Course</b> <b>Required Semester of Completion:</b> Year 4, Spring			
MATH/Technical Selective		3	^
<b>Course Details:</b> Students must select from the approved MATH/Technical Selective List. <b>Required Semester of Completion:</b> Year 4, Spring			
<b>Total</b>			<b>16</b>

## Year Three (30 credits)

Fall Term	Minimum Grade	Credits	▼
Introduction to Microprocessors		4	▲
<b>Course Details:</b> Must be taken with TCM 3xx00(Technical Documentation) <b>Required Semester of Completion:</b> Year 4, Spring			
Intro to Technical Documentation		1	▲
<b>Course Details:</b> Must be taken with ECET 20900. <b>Required Semester of Completion:</b> Year 3, Fall			
General Physics		4	▲
<b>Course Details:</b> Also meets Gen Ed Life & Physical Sciences Competency <b>Required Semester of Completion:</b> Year 4, Spring			
ECET Elective		3	▲
<b>Course Details:</b> Students must select classes from the approved list of ECET Electives <b>Required Semester of Completion:</b> Year 4, Spring			
Engineering Economics		3	▲
<b>Required Semester of Completion:</b> Year 4, Spring			
		<b>Total</b>	<b>15</b>

Spring Term	Minimum Grade	Credits	▼
Analog Network Signal Processing		4	▲
<b>Required Semester of Completion:</b> Year 4, Spring			
ECET Elective		3	▲
<b>Course Details:</b> Students must select classes from the approved list of ECET Electives <b>Required Semester of Completion:</b> Year 4, Spring			
ECET Elective		3	▲
<b>Course Details:</b> Students must select classes from the approved list of ECET Electives <b>Required Semester of Completion:</b> Year 4, Spring			
Bus Administration: Intro		3	▲
<b>Course Details:</b> Also meets Gen Ed Social Sciences Competency <b>Required Semester of Completion:</b> Year 4, Spring			
Ethics & Professionalism in Tech		1	▲
<b>Required Semester of Completion:</b> Year 4, Spring			
Ethical Communication in Technology		1	▲
<b>Course Details:</b> Must be taken with ECET 49300. <b>Required Semester of Completion:</b> Year 4, Spring			
		<b>Total</b>	<b>15</b>

### Year Four (29 credits)

Fall Term	Minimum Grade	Credits	▼
ECET Elective		3	▲
<b>Course Details:</b> Students must select classes from the approved list of ECET Electives <b>Required Semester of Completion:</b> Year 4, Spring			
Senior Design Project Phase I		1	▲
<b>Course Details:</b> Must be taken with TCM 4xx00(Oral & Written Design Reports) <b>Required Semester of Completion:</b> Year 4, Spring			

Spring Term	Minimum Grade	Credits	▼
ECET Elective		3	▲
<b>Course Details:</b> Students must select classes from the approved list of ECET Electives <b>Required Semester of Completion:</b> Year 4, Spring			
Senior Design Project Phase II		2	▲
<b>Course Details:</b> Must be taken with TCM 4xx00(Oral & Written Design Reports) <b>Required Semester of Completion:</b> Year 4, Spring			

Technical Design Reporting & Communication I	1	^
<b>Course Details:</b> Must be taken with ECET 49000 <b>Required Semester of Completion:</b> Year 4, Spring		
TECH Elective	3	^
<b>Course Details:</b> Students must select class from the approved TECH Elective List <b>Required Semester of Completion:</b> Year 4, Spring		
Elementary Chemistry I	3	^
<b>Course Details:</b> Also meets Gen Ed Life & Physical Sciences Competency <b>Required Semester of Completion:</b> Year 4, Spring		
Total Quality Control	3	^
<b>Required Semester of Completion:</b> Year 4, Spring		
Notify School of Intent to Graduate <b>M</b>		^
<b>Milestone Details:</b> Please contact your school to determine appropriate steps necessary to apply for graduation. <b>Required Semester of Completion:</b> Year 4, Fall		
<b>Total</b>		<b>14</b>

Advanced Technical Design Communication II	1	^
<b>Course Details:</b> Must be taken with ECET 49100 <b>Required Semester of Completion:</b> Year 4, Spring		
General Education Social Sciences Competency	3	^
<b>Course Details:</b> Students must select a course from IUPUI's Social Science course list. <b>Required Semester of Completion:</b> Year 4, Spring		
TECH Elective	3	^
<b>Course Details:</b> Students must select class from the approved TECH Elective List <b>Required Semester of Completion:</b> Year 4, Spring		
Sustainability Elective	3	^
<b>Course Details:</b> Students must select class from the approved list <b>Required Semester of Completion:</b> Year 4, Spring		
<b>Total</b>		<b>15</b>

**Degree Map Link:**
<https://sisjee.iu.edu/sisigps-prd/web/igps/dm/public/maps/view?mapId=4c712836-db71-11e3-8143-d8ea9364921f>

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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.](#)