

# ELECTRICAL ENGINEERING (ELEN) - DEGREE PLAN

Name: \_\_\_\_\_

UIN: \_\_\_\_\_

Total credits required: 128  
Catalog Edition: 140  
Students entering 2017-18

FRESHMAN	16 Credits	CR T-P	17 Credits	CR T-P
	<b>ENGR 111 - Foundations of Engineering I</b> <i>MATH 151c</i>	2 1-3	<b>ENGR 112 - Foundations of Engineering II</b> <i>ENGR 111; MATH 151</i>	2 1-3
	<b>MATH 151 - Engineering Math I</b> <i>MATH 150 or MPE Acceptable Score</i>	4 3-2	<b>MATH 152 - Engineering Math II</b> <i>MATH 151</i>	4 3-2
	<b>PHYS 218 - Mechanics</b> <i>MATH 151c</i>	4 3-3	<b>PHYS 208 - Electricity and Optics</b> <i>PHYS 218; MATH 152c</i>	4 3-3
	<b>ENGL 104 - Composition and Rhetoric</b> <i>No prerequisites</i>	3 3-0	<b>CHEM 107 - Chemistry for Engineers</b> <i>CHEM 117c</i>	3 3-0
	University Core Curriculum <sup>A</sup> <i>See university approved list</i>	3 3-0	<b>CHEM 117 - Chemistry for Engineers Lab</b> <i>CHEM 107c</i>	1 0-3
			University Core Curriculum <sup>A</sup> <i>See university approved list</i>	3 3-0

SOPHOMORE	17 Credits	CR T-P	16 Credits	CR T-P
	<b>CSCE 121 - Intro Prog Design &amp; Concepts</b> <i>ENGR 112 or Programming Course</i>	4 3-2	<b>MATH 308 - Differential Equations</b> <i>MATH 251c</i>	3 3-0
	<b>MATH 251 - Engineering Math III</b> <i>MATH 152</i>	3 3-0	<b>MATH 311 - Topics in Applied Math I</b> <i>MATH 251; 308c</i>	3 3-0
	<b>ECEN 248 - Digital System Design</b> <i>PHYS 208; MATH 152</i>	4 3-3	<b>ECEN 214 - Electrical Circuit Theory</b> <i>PHYS 208; CHEM 107; 117; MATH 308c</i>	4 3-3
	University Core Curriculum <sup>A</sup> <i>See university approved list</i>	3 3-0	University Core Curriculum <sup>A</sup> <i>See university approved list</i>	3 3-0
	University Core Curriculum <sup>A</sup> <i>See university approved list</i>	3 3-0	University Core Curriculum <sup>A</sup> <i>See university approved list</i>	3 3-0

JUNIOR	16 Credits	CR T-P	16 Credits	CR T-P
	<b>PHYS 222 - Modern Physics for Engineers</b> <i>PHYS 208; MATH 308c</i>	3 3-0	<b>ECEN 303 - Random Signals and Systems</b> <i>MATH 308</i>	3 3-1
	<b>ECEN 314 - Signals and Systems</b> <i>ECEN 214; MATH 308</i>	3 3-1	<b>ECEN 350 - Computer Architecture and Design</b> <i>ECEN 248</i>	4 3-3
	<b>ECEN 322 - Electric and Magnetic Fields</b> <i>ECEN 214; PHYS 208; MATH 311</i>	3 3-1	<b>ECEN 370 - Electrical Properties of Materials</b> <i>PHYS 222</i>	3 3-1
	<b>ECEN 325 - Electronics</b> <i>ECEN 314c; MATH 311</i>	4 3-4	Technical Elective <sup>C</sup> <i>See department approved list</i>	
	<b>Communications Elective<sup>B</sup></b> <i>See university approved list</i>	3 3-0	ECEN Elective <sup>C</sup> <i>See department approved list</i>	

SENIOR	16 Credits	CR T-P	16 Credits	CR T-P
	<b>ECEN 403 - Electrical Design Lab I</b> <i>Comm Elec; ECEN 303; 314; 322; 325; 350; 370</i>	3 2-3	<b>ECEN 404 - Electrical Design Lab II</b> <i>ECEN 403</i>	3 2-3
	ECEN Elective <sup>C</sup> <i>See department approved list</i>		ENGR/PHIL 482 - Ethics and Engineering <sup>D</sup> <i>Junior classification</i>	3 3-0
	ECEN Elective <sup>C</sup> <i>See department approved list</i>		ECEN Elective <sup>C</sup> <i>See department approved list</i>	
	ECEN Elective <sup>C</sup> <i>See department approved list</i>		ECEN Elective <sup>C</sup> <i>See department approved list</i>	
	ECEN Elective <sup>C</sup> <i>See department approved list</i>		ECEN Elective <sup>C</sup> <i>See department approved list</i>	
	ICD Elective <sup>A</sup> <i>See university approved list</i>	3 3-0	ICD Elective <sup>A</sup> <i>See university approved list</i>	3 3-0
	<b>ECEN 399 - ENGR<sup>X</sup></b> <i>ECEN 248; ECEN 214</i>	0		

<sup>A</sup> Students must select from: POLS 206 & 207 (3 cr each), American History (6 cr), Social and Behavioral Sciences Elective (3 cr), Creative Arts Elective (3 cr), and International and Cultural Diversity (ICD) Electives (6 cr). Some ICD Electives also count toward Creative Arts, Social and Behavioral Sciences or American History. See TAMU catalog for complete list of approved courses: <http://catalog.tamu.edu>.

<sup>B</sup> Select from ENGL 210, COMM 205 or 243.

<sup>C</sup> See advising office for list of approved electives.

<sup>D</sup> ENGR/PHIL 482 also fulfills the UCC Language, Philosophy & Culture requirement.

<sup>X</sup> See Department approved list.

- Courses in **bold** must be completed with a C or better.
- Two years of the same foreign language/sign language (high school) or two semesters of the same foreign language (college) are required for graduation.
- Prerequisite courses followed by a "c" indicate corequisites and may be taken concurrently.