

UNIVERSITY of HOUSTON | ENGINEERING

Department of Electrical & Computer Engineering

Degree Plan for Electrical Engineering (BSEE)

LAST NAME: _____ FIRST NAME: _____ STUDENT ID # _____ Catalog Year _____

**Degree plan will not be processed without declared degree catalog year

Approved by Advisor: _____ (sign) _____ (print) Date: _____

STEP ONE: Choose Concentration Area

Students must take all courses in Category 1.

STEP TWO: Select courses

Students must take 7 concentration electives, 2 ECE electives, and 1 technical elective. Course selections must include a minimum of 4 labs. Students with 7 or more labs can substitute 3 labs for one ECE elective. *If this is your plan, list the 3 extra labs in one of the ECE elective boxes.*

STEP THREE: Get approved by concentration advisor

Students must have this formed signed by their concentration advisor before submission. Submit to the ECE front office located in N308, Engineering Bldg. 1.

CATEGORY 1: CONCENTRATION AREAS & REQUIRED CONCENTRATION ELECTIVES

Students must take **ALL** of the courses listed in this category in their chosen Concentration Area.

<input type="checkbox"/> Signals, Communications & Controls	<input type="checkbox"/> Electronics	<input type="checkbox"/> Nanosystems	<input type="checkbox"/> Applied Electromagnetics	<input type="checkbox"/> Power & Renewable Energy	<input type="checkbox"/> Computers & Embedded Systems
3366: Intro to DSP	3364: Circuits & Systems	4339/4119: Physical Principles of Solid State Devices	3318: Applied Electricity & Magnetism	3318: Applied Electricity & Magnetism	3441: Digital Logic Design
4371/4117 Intro to Telecommunications Engineering	3456: Analog Electronics	5319/5119: Intro to Nanotechnology	5317/5113 Microwave Engineering	3364: Circuits & Systems	4437 Embedded Microcomputer Sys OR 5440 Adv Digital Design
4375/4115: Automatic Control Systems	3457: Digital Electronics	5320/5120: Intro to Nanomaterials Engineering	5318/5114 Antenna Engineering	4363/4113: Electromechanical Energy Conversion	5367: Intro to Computer Architecture & Design
	4339/4119: Physical Principles of Solid State Devices	5321/5121: Design & Fabrication of Nanoscale Devices		5377/5127: Power Transmission & Distribution	COSC 1430: Intro to Programming
	3441: Digital Logic Design				

CATEGORY 2: CONCENTRATION ELECTIVES

Students are free to choose from the following courses to complete (7) Concentration Electives in total.

Signals, Communications & Controls	Electronics	Nanosystems	Applied Electromagnetics	Power & Renewable Energy	Computers & Embedded Systems
Select 4	Select 2	Select 3	Select 4	Select 3	Select 3
<input type="checkbox"/> 3364: Circuits & Systems	<input type="checkbox"/> 3318: Applied Electricity & Magnetism	<input type="checkbox"/> 3318: Applied Electricity & Magnetism	<input type="checkbox"/> 3364: Circuits & Systems	<input type="checkbox"/> 4375/4115: Automatic Control Systems	<input type="checkbox"/> 3366: Intro to DSP
<input type="checkbox"/> 3441: Digital Logic Design	<input type="checkbox"/> 5317/5113 Microwave Engineering	<input type="checkbox"/> 3364: Circuits & Systems	<input type="checkbox"/> 3366: Intro to DSP	<input type="checkbox"/> 5335/5115: State-Space Control Systems	<input type="checkbox"/> 3456: Analog Electronics
<input type="checkbox"/> 4437: Embedded Microcomputer Systems	<input type="checkbox"/> 5318/5114 Antenna Engineering	<input type="checkbox"/> 3441: Digital Logic Design	<input type="checkbox"/> 3456: Analog Electronics	<input type="checkbox"/> 5380/5180: Power Electronics & Electric Drives	<input type="checkbox"/> 3457: Digital Electronics
<input type="checkbox"/> 5317/5113 Microwave Engineering	<input type="checkbox"/> 5319/5119: Intro to Nanotechnology	<input type="checkbox"/> 4363/4113: Energy Conversion Devices	<input type="checkbox"/> 4339/4119: Physical Principles of Solid State Devices	<input type="checkbox"/> 5388: Renewable Energy Technology	<input type="checkbox"/> 4375/4115: Automatic Control Systems
<input type="checkbox"/> 5318/5114 Antenna Engineering	<input type="checkbox"/> 5340 Intro to Well-Logging Techniques	<input type="checkbox"/> 5317/5113 Microwave Engineering	<input type="checkbox"/> 4363/4113: Electromechanical Energy Conversion	<input type="checkbox"/> 5385: Smart Grid Technology	<input type="checkbox"/> 4437: Embedded Microcomputer Systems
<input type="checkbox"/> 5335/5115: State-Space Control Systems	<input type="checkbox"/> 5346: VLSI Design	<input type="checkbox"/> 5318/5114 Antenna Engineering	<input type="checkbox"/> 4371/4117 Intro to Telecomm Engineering		<input type="checkbox"/> 5346: VLSI Design
<input type="checkbox"/> 5354: Digital Video	<input type="checkbox"/> 5356: CMOS Analog Integrated Circuits	<input type="checkbox"/> 5322: Nanoengineering Research	<input type="checkbox"/> 5319/5119: Intro to Nanotechnology		<input type="checkbox"/> 5354: Digital Video
<input type="checkbox"/> 5440 Advanced Digital Design	<input type="checkbox"/> 5358: Modern Optics & Photonics	<input type="checkbox"/> 5346: VLSI Design	<input type="checkbox"/> 5340 Intro to Well-Logging Techniques		<input type="checkbox"/> 5440 Advanced Digital Design
<input type="checkbox"/> 5451: Internetworking		<input type="checkbox"/> 5356: CMOS Analog Integrated Circuits	<input type="checkbox"/> 5344 Signal Integrity		<input type="checkbox"/> 5451: Internetworking
<input type="checkbox"/> 5385: Smart Grid Technology		<input type="checkbox"/> 5380/5180: Power Electronics & Electric Drives	<input type="checkbox"/> 5346: VLSI Design		<input type="checkbox"/> 5330: Introduction to Robotics
<input type="checkbox"/> 5330: Introduction to Robotics			<input type="checkbox"/> 5358 Modern Optics & Photonics		<input type="checkbox"/> 5357: Introduction to Cybersecurity
<input type="checkbox"/> 5357: Introduction to Cybersecurity					<input type="checkbox"/> COSC 2430: Programming & Data Structures:
<input type="checkbox"/> 5397: Robotics & ROS					<input type="checkbox"/> 5397: Robotics & ROS
<input type="checkbox"/> 5397: Intro to Machine Learning					<input type="checkbox"/> 5397: Intro to Machine Learning

ECE ELECTIVES

Students must take **two** additional ECE 3000-, 4000-, or 5000-level courses.

ECE ELECTIVE

ECE ELECTIVE

TECHNICAL ELECTIVE

Students must take one of the following courses.

<input type="checkbox"/> <u> </u> Any ECE 3000-, 4000-, or 5000-level course	<input type="checkbox"/> MECE 2334 Intro to Thermodynamics	<input type="checkbox"/> MATH 3364 Complex Analysis	<input type="checkbox"/> MATH 4364 Numerical Analysis
<input type="checkbox"/> PHYS 3312 Modern Optics	<input type="checkbox"/> PHYS 3315 Modern Physics I	<input type="checkbox"/> MATH 3335 Vector Analysis	<input type="checkbox"/> MECE 3400 Intro to Mechanics

ELECTIVE LABS

Your elective choices must include at least **four** labs. Please list these here.

ECELAB	ECELAB
ECFLAB	ECFLAB