ELECTRICAL ENGINEERING 2023-2024

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
MATH 1131Q – Calculus I	4	MATH 1132Q – Calculus II	4
CHEM 1127Q – Gen. Chem. I	4	PHYS 1501Q – Engineering Physics I[1]	4
CSE 1010 – Intro. to Computing for Engr.	3	ENGR 1166 – Foundations of Engineering	3
ENGL 1010 or 1011 – Writing	4	ECE 1401 – Programming for Elec. Engineers	3
ENGR 1000 – Orientation to Engr.	1	Arts and Humanities course[2]	3
	16		17

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
ECE 2001 – Electric Circuits	4	CSE 2301 – Logic Design	4
MATH 2110Q – Multivariable Calculus	4	ECE 3101 – Signals and Systems	3
MATH 2410Q – Differential Equations	3	ECE 3201 – Electronic Circuit Design and Analysis	4
PHYS 1502Q – Engineering Physics II[1]	4	PHIL 1104 – Philosophy and Social Ethics	3
	15	STAT 3345 – Probability Models Engineers[3]	3
			17

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
ECE 3001 – EM Fields and Waves	3	ECE 3111 – Systems Analysis	4
Restricted Elective[4]	3	Restricted Elective[4]	3
Restricted Elective[4]	3	Restricted Elective[4]	3
MATH 2210Q – Linear Algebra	3	Social Sciences course[3]	3
Diversity and Multiculturalism course[3]	3	Elective	3
	15		16

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
ECE 4901 – ECE Design I[5]	2	ECE 4902 – ECE Design II	3
ECE 4900W – Comm Engr Soln[6]	1	Professional Requirement[7]	3
Professional Requirement[7]	3	Professional Requirement[7]	3
Professional Requirement[7]	3	Design Laboratory[8]	3
Design Laboratory[8]	3	Social Sciences course[2]	3
Diversity and Multiculturalism course[2]	3		15
	15		

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[1] Either the two-semester sequence of PHYS 1401Q-1402Q or the three-semester sequence of PHYS 1201Q-1202Q followed by PHYS 1230 or 1530 may be taken instead to satisfy this requirement. However, only eight credits of PHYS 1201-1202-1230/1530 can be used toward the required 126 credits for the Engineering degree.

[2] The courses from content areas one (Arts and Humanities) and two (Social Sciences) must be from four different departments. One course from either content area one (Arts and Humanities) or content area two (Social Sciences) may also be used to fulfill one of the requirements from content area four (Diversity and Multiculturalism). One course from content area four must be an international course.

[3] STAT3345 can be replaced with MATH3160, though STAT3345 is recommended. Note that, between the two courses, only MATH3160 can be used for math minor.

[4] The four restricted electives must be selected as follows: ECE 3211, ECE 3231, or ECE 3212; ECE 3221 or ECE 4201; ECE 4211 or ECE 4225; and ECE 4111 or ECE 4112. ECE 4211 can be substituted with ECE 5211 and ECE 4225 can be substituted with ECE 5225.

[5] Prerequisites: Senior standing; ECE 3201; C+ or better in ECE 2001 and ECE 3101.

[6] **One additional W course must be taken**, typically as one of the content area courses.

[7] Twelve (12) credits professional requirements are chosen from 3000 or above Math, Science, and Engineering courses (excluding ENGR 3021, 3022, 3024, 3025 and independent study courses outside of ECE). **Two courses must be ECE courses** and only 3 credits can be from ECE 3096, ECE 4096, ECE 4079, ECE 4097, and ECE 4099. Any non-ECE professional requirement courses must be approved by the advisor and department UG director.

[8] Choose two from ECE 3225, ECE 3411, ECE 3421, ECE 4079, ECE 4113, ECE 4114, ECE 4122, ECE 4132, ECE 4225, ECE 4242, ECE 4244, ECE 4401, ECE 4402, ECE 5242 and ECE 6244. Only one design lab may be ECE 4079.