Senior Checklist

Department of Electrical and Computer Engineering

B.S. in Electrical Engineering

Students entering Fall 2016 - present

Last Name	First Name	ID Number	Date

Engineering Core			
Course	Lec. Grade	Lab Grade	Units
ENGR 1			2
CENG 41			4
COEN 44 or 11			5
COEN 12			5
MECH 121			4
Total			20

Electrical Engineering Core			
Course	Lec. Grade	Lab Grade	Units
ELEN 20			2
ELEN 21			5
ELEN 33			5
ELEN 50			5
ELEN 100			5
ELEN 104			5
ELEN 110			5
ELEN 115			5
Total			37

Technical Electives							
SEE LISTS ON BACK SIDE OF FORM (Note 2)							
Course	P	E	C	S	Lec. Grade	Lab Grade	Units
Total							

Professional Development	
SEE LIST ON BACK SIDE OF FORM (Note 3)	
Option	Units
Total	

Design Project			
Course	Lec. Grade	Lab Grade	Units
ELEN 192			2
ELEN 194			2
ELEN 195			2
ELEN 196			1
Total			7

Additional Electives		
Course	Grade	Units

Courses for credit for MSEE degree		
Course	Grade	Units

Humanities and Social Sciences			
Subject	Course	Grade	Units
CTW 1			
CTW 2			
English 181			
C&I 1			
C&I 2			
C&I 3			
Social Science			
Diversity			
Ethics			
RTC 1			
RTC 2			
RTC 3			
Exp. Learning Social Justice			
Total (min. 41)			

Mathematics and Science			
Subject	Lec. Grade	Lab Grade	Units
Math 11			4
Math 12			4
Math 13			4
Math 14 or 21			4
AMTH 106 (or MATH 22)			4
AMTH 108 (or MATH 122)			4
PHYS 31			4
PHYS 32			5
PHYS 33			5
PHYS 34			5
CHEM 11			5
Select one of the following and write option below (Note 1)			
CHEM 12, BIOL 21, PHYS 113 or 121, Math 53, 105 or 123			
			5
Total			53

Pathway Courses			
Pathway Title:			
	Course 1	Course 2	Course 3
Courses:			

TOTAL UNITS	
Engineering Core	
ELEN Core	
Technical Electives	
Professional Development	
Design Project	
Additional Electives	
Humanities & Social Science	
Mathematics & Science	
Total (min. 190)	

List any approved substitutes for requirements		
Course	Grade	Units

Advisor's Signature	**Date**	**Department Chair's Signature**	**Date**

02/03/2020

Note 1: Math Science Elective may be one of the following:
CHEM 12, BIOL 21, PHYS 113, PHYS 121, MATH 53, MATH 105, or MATH 123

Note 2: ELEN electives: One elective must be selected from each of the following categories:

Power (P)	
164	Introduction to Power Electronics
182	Energy Systems Design
183	Power Systems Analysis
184	Power System Stability and Control

Electronics (E)	
116	Electronic Circuits II
127	Advanced Logic Design
151	Semiconductor Devices
152	Semiconductor Devices and Technology
153	Digital Integrated Circuit Design
156	Introduction to Nanotechnology

RF and Communications (C)	
105	Electromagnetics II
141	Communication Systems
144	RF and Microwave Components

Systems (S)	
112	Modern Network Synthesis
118	Fundamentals of Computer Aided Circuit Simulation
123	Mechatronics
130	Control Systems
133	Digital Signal Processing
160	Chaos Theory, Metamathematics and the Limits of Knowledge
161	Information Theory and Quantum Computing
167	Medical Imaging Systems

Double majors must select one elective from three of the four categories.
The fourth may be selected from the following list (with approval of advisor):
COEN Majors: COEN120, COEN122, COEN146
BIOE Majors: BIOE 161, BIOE 162, BIOE 168

Note 3: Professional Development
Four or more units in study abroad program that does not duplicate other coursework.
Two units in ENGR 110.
Preparation for graduate study in electrical engineering with completion of two or more additional units of upper-division or graduate-level courses.
Completion of an approved minor or second major in any field of engineering or science.
Two units of Peer education experience.
Two units of undergraduate research, ELEN 199
Cooperative education experience with enrollment in ELEN 188 and ELEN 189.