Senior Checklist

Department of Electrical and Computer Engineering

B.S. in Electrical Engineering

Students entering Fall 2019 - present

Last Name	First Name	ID Number	Date

Engineering Core

Course	Lec. Grade	Lab Grade	Units
ENGR 1			2
COEN 10			5
COEN 11			5
COEN 12			5
MECH 121			4
Total			21

Electrical Engineering Core

Course	Lec. Grade	Lab Grade	Units
ELEN 20			2
ELEN 21			5
ELEN 50			5
ELEN 100			5
ELEN 104			5
ELEN 110			5
ELEN 115			5
ELEN 120			5
Total			37

Technical Electives

Five TEs selected from at least four of the categories shown. SEE LISTS ON BACK. (Note 2)

Course	C	P	I	S	D	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			5
PHYS 32			5
PHYS 33			5
PHYS 34 or Math 51			5
CHEM 11			5
Select one of the following and write option below(Note 1)			
CHEM 12, BIOL 1A, PHYS 113, PHYS 121, MATH 53, MATH 105, or MATH 123			
			5
Total			54

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

11/05/2020

Note 1: Math Science Elective may be one of the following:
CHEM 12, BIOL 1A, PHYS 113, PHYS 121, MATH 53, MATH 105, or MATH 123
Note 2: Five 100-level electives: One elective must be selected from at least four of the following five areas.

RF and Communications (C)	
105	Electromagnetics II
141	Communication Systems
142	Communications and Networking
144	Microwave Circuit Analysis and Design

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

IC Design (I)	
116	Analog Integrated Circuit Design
151	Semiconductor Devices
152	Semiconductor Devices and Technology
153	Digital Integrated Circuit Design
156	Introduction to Nanotechnology

Systems (S)	
118	Fundamentals of Computer Aided Circuit Simulation
130	Control Systems
133	Digital Signal Processing
134	Applications of Signal Processing
160	Chaos Theory, Metamathematics and the Limits of Knowledge
161*	Information Theory and Quantum Computing
167	Medical Imaging Systems

Digital and Embedded Systems (D)	
121	Real-time Embedded Systems
122	Computer Architecture
123	Mechatronics
124	Introduction to hardware Security and Trust
127	Advanced Logic Design

* Denotes a waiver needed.

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.
Completion of 10 or more units in the combined bachelor of science and master of science program
Note 4: Optional Elective or BS/MS Option
These slots will be given as extra credits to be used in the 5 year BS/MS program.