Bachelor of Science in Electrical Engineering
Suggested Sequence of Courses

	First Semester	Units
CHEM 180	Chemistry for Energy & the Environment (Major Core, B1, B3, ES)	3
MATH 226	Calculus I (Major Core, B4) [2]	4
ENGR 100	Introduction to Engineering (Major Core)	3
ENGR 212	Introduction to Unix and Linux for Engineers (Major Core)	2
ENG 114	Writing the First Year: Finding Your Voice (A2) [1]	3
	Units	15

	Second Semester	
MATH 227	Calculus II (Major Core)	4
PHYS 220 & PHYS 222	General Physics with Calculus I and General Physics with Calculus I Laboratory (Major Core, B1, B3)	4
ENGR 213	Introduction to C Programming for Engineers (Major Core) [4]	3
ENGR 214	Programming Laboratory (Major Core)	1
GE Area A: Oral Communication (A1) [3,4]		3
GE Area C		3
	Units	18

	Third Semester	
MATH 228	Calculus III (Major Core)	4
PHYS 230 & PHYS 232	General Physics with Calculus II and General Physics with Calculus II Laboratory (Major Core)	4
ENGR 221	Data Structures and Algorithms with Python (Major Core)	4
ENGR 281	Probability and Statistics with Python (Major Core)	2
GE Area B: Life Science (B2)		3
	Units	17

	Fourth Semester	
MATH 245	Elementary Differential Equations and Linear Algebra (Major Core)	3
PHYS 240 & PHYS 242	General Physics with Calculus III and General Physics with Calculus III Laboratory (Major Core)	4
ENGR 205	Electric Circuits (Major Core) [4]	3
ENGR 206	Circuits and Instrumentation Laboratory (Major Core)	1
GE Area C		3
GE Area D		3
	Units	17

Fifth Semester

ENGR 305	Linear Systems Analysis (Major Core)	3
ENGR 315	Linear Systems Analysis Laboratory (Major Core)	1
ENGR 353	Microelectronics (Major Core)	3
ENGR 356	Digital Design (Major Core)	3
ENGR 357	Digital Design Laboratory (Major Core)	1
ENGR 478	Design with Microprocessors (Major Core)	4
GE Area F [±]		3
	Units	18

Sixth Semester

ENGR 301	Microelectronics Laboratory (Major Core)	1
ENGR 306	Electromechanical Systems(Major Core)	3
ENGR 442	Op. Amplifier System Design (Major Core)	3
ENGR 446	Control Systems Laboratory (Major Core)	1
ENGR 447	Control Systems (Major Core)	3
GE Area C		3
	Units	14

Seventh Semester

ENGR 350	Electromechanical Systems (Major Core)	3
ENGR 449	Communication Systems a(Major Core)	3
ENGR 451	Digital Signal Processing (Major Core)	4
ENGR 696	Engineering Design Project I (Major Core) [6]	1
GE Area D		3
	Units	14

Eighth Semester

ENGR 697GW	Engineering Design Project II - GWAR (Major Core)	2
Major Upper-Division Electives - Take Two [7]		6
GE Area UD-C: Upper-Division Arts and/or Humanities (Consider SF State Studies Course) [8]		3
GE Area UD-D: Upper-Division Social Sciences (Consider SF State Studies Course) [8]		3
	Units	14

	Total Units	**127**