



**CALIFORNIA STATE UNIVERSITY, LOS ANGELES
ELECTRICAL ENGINEERING BS PROGRAM (BSEE)**

Lower Division General Education Requirements (32 units)			Lower Division General Education Requirements (18 units)		
ENGL 101	Composition I: Reflective and Expository Writing	4	→	Composition I: Reflective and Expository Writing	3
COMM 150	Oral Communication	4	→	Oral Communication	3
HIST 202A or 202B	United States Civilization	4	→	United States History	3
POLS 150	Government and American Society	4	→	United States Constitution and State/Local Government	3
BLOCK C - Humanities	3 courses from 3 areas	12	→	BLOCK C - Humanities	1 course from
BLOCK E – Lifelong Understanding and Self-Development	1 course	4	→	BLOCK D – Social Sciences	1 course

University Requirement (4 units)			University Requirement		
ENGL 102	Composition II: Analytical and Persuasive Writing	4	→	ENGL 2030	Introduction to Technical Writing
WPE	(prior to completing 90 semester units)	NC/CR	→	WPE	(prior to completing 90 semester units)

Lower Division Major Requirements (63 units)			Lower Division Major Requirements (45 units)		
ENGR 150	Introduction to Engineering	1	→	ENGR 1500	Introduction to Higher Education for
EE 204	Circuit Analysis	4	→	EE 2040	Circuit Analysis
CE/ME 208	Statics and Strength of Material	4	→	No longer in the program	
EE 210	Electrical Measurements Laboratory	1	→	EE 2049	Electrical Measurements and Circuits Laboratory
EE 211	Electric Circuits Laboratory	1	→		
CS 242	"C" Programming	4	→	EE 2450	Embedded System Programming I
EE 244	Digital Engineering	4	→	EE 2440	Digital Engineering
EE 246	Digital Logic Laboratory	1	→	EE 2449	Digital Logic Laboratory
EE 290	EE Computing	3	→	No longer in the program	
CHEM 101	General Chemistry I	5	→	CHEM 1040	General Chemistry for Engineers
MATH 206	Calculus I: Differentiation	4	→	MATH 2110	Calculus I
MATH 207	Calculus II: Integration	4	→	MATH 2120	Calculus II
MATH 208	Calculus III: Sequences, Series, and Coordinate Systems	4	→	MATH 2130	Calculus III
MATH 209	Calculus IV: Several Variables	4	→		
MATH 215	Differential Equations	4	→	MATH 2150	Differential Equations
PHYS 211	Mechanics	5	→	PHYS 2100	General Physics I, Mechanics and Thermodynamics
PHYS 212	Wave, Optics and Thermodynamics	5	→	PHYS 2200	General Physics II, Electromagnetism and Optics
PHYS 213	Electricity and Magnetism	5	→		

NEW COURSE ENGL 2030 Introduction to Technical Writing 3

Upper Division Major Requirements (48 units)			Upper Division Major Requirements (40 units)		
ENGR 300	Economics for engineers	4	→	EE/ME 3000	Engineering Economics
ENGR 301	Ethics & Professionalism	1	→	EE/ME 3010	Ethics and Professionalism in Engineering
EE 304	Electric Machines	4	→	EE 3300	Electric Machines
EE 317	Electronics Laboratory I	1	→	No longer in the program	
EE 320	Analog Communication Systems	4	→	EE 3200	Analog Communication Systems
EE 330	Writing for Electrical Engineers	1	→	No longer in the program	
EE 332	Systems Analysis	4	→	EE 3020	Systems Analysis
EE 334	Probability and Random Processes	4	→	EE 3040	Probability and Random Processes
EE 336	Electronics	4	→	EE 3700	Electronics I
EE 345	Microcomputer Programming	4	→	EE 3450	Embedded Systems Programming II
EE 360	Control Systems Theory I	4	→	EE 3600	Control Systems Theory I
EE 437	Electric and Magnetic Fields	4	→	EE 3050	Electric and Magnetic Fields
EE 496A	Senior Design I	3	→	EE 4961	Senior Design I
EE 496B	Senior Design II	3	→	EE 4962	Senior Design II
EE 496C	Senior Design III	3	→		
NEW COURSE			→	EE 3001	Numerical Analysis and Modeling Using MATLAB
NEW COURSE			→	EE 3810	Sensors, Data Acquisition, and Instrumentation with Application in Biomedical Engineering

Senior Design Requirements (12 units)
The Senior Design requirement is a 3 course series that must be completed sequentially. The first course (496A) is only offered during the Fall quarter.

Senior Design Requirements (6 units)
The Senior Design requirement is a 2 course series that must be completed sequentially. The first course (4961) is only offered during the Fall Semester.

Upper Division Technical Electives (35 units)
Select 3 lectures and 1 laboratory course in one specialty with advisor's approval.

Upper Division Technical Electives (20 units)
Select 3 lectures and 1 laboratory course in one specialty with advisor's approval.

Select 5 additional lectures and 2 laboratories as upper division technical electives.

Select 3 additional lectures and 1 laboratory as upper division technical electives.

Lecture Electives (32 units):

Lecture Electives (18 units):

CS 342	Object Oriented Programming Using C++	4 →	No longer in the program	
EE 347	Computer Logic Design	4 →	No longer in the program	
EE 371	Analog Electronics	4 →	EE 3710	Electronics II 3
EE 372	Digital Electronics	4 →	EE 3720	Digital Electronics 3
EE 412	Antennas	4 →	EE 4230	Antennas 3
EE 413	Systems Engineering	4 →	EE 4130	Systems Engineering 3
EE 420	Digital Communication Systems	4 →	EE 4200	Digital Communication Systems 3
EE 421	Coding For Communications	4 →	EE 4210	Coding For Communications 3
EE 422	Digital Signal Processing	4 →	EE 4220	Digital Signal Processing 3
EE 424	Fiber Optics	4 →	EE 4240	Fiber Optics 3
EE 426	Digital Image Processing	4 →	EE 4250	Digital Image Processing 3
EE 427	Speech Signal Processing	4 →	No longer in the program	
EE 431	Electric Power Distribution	4 →	EE 4320	Electric Power Distribution 3
EE 432	Power Transmission Lines	4 →	EE 4300	Introduction to Power Systems Engineering 3
EE 433	Electric Power System Analysis	4 →	EE 4310	Power Systems Analysis 3
EE 434	Electromagnetic Energy Conversion	4 →	EE 4340	Electromagnetic Energy Conversion 3
EE 436	Analog Integrated Circuits	4 →	EE 4710	Analog Integrated Circuits 3
EE 439	Digital Integrated Circuits	4 →	EE 4720	CMOS VLSI Design 3
EE 440	Data Communications and Networking	4 →	EE 4400	Data Communications and Networking 3
EE 442	Multimedia Networking	4 →	EE 4420	Multimedia Networking 3
EE 445	Microprocessor Interface Design	4 →	No longer in the program	
EE 446	Embedded Architectures	4 →	EE 4450	Embedded Architectures 3
EE 447	backend Compiler Technology	4 →	No longer in the program	
EE 449	Computer Organization	4 →	EE 4440	Computer Organization 3
EE 460	Control Systems Theory II	4 →	EE 4600	Control Systems 3
EE 461	Discrete-Time Control Systems	4 →	EE 4610	Discrete-Time Control Systems 3
EE 462	State Space Control Systems	4 →	EE 4620	Modern Control Systems 3
EE 472	Optoelectronics	4 →	EE 4730	Optoelectronics 3
EE 483	Power Electronics	4 →	EE 4330	Power Electronics 3
EE 485	Introduction to Biomedical Devices	4 →	EE 4810	Biomedical Devices 3
EE 486	Biomedical Signal Processing	4 →	EE 4820	Biomedical Signal Processing 3
EE 454	Special Topic in EE	4 →	EE 4540	Special Topics in EE 1-3

Laboratory Electives (3 units):

Laboratory Electives (2 unit):

EE 314	Electromagnetic Energy Conversion laboratory	1 →	EE 3309	Electromagnetic Energy Conversion Laboratory 1
EE 321	Communications Laboratory	1 →	EE 3209	Communications Laboratory 1
EE 340	Electronics Laboratory II	1 →	EE 3709	Electronics Laboratory 1
EE 428	Digital Signal Processing Laboratory	1 →	EE 4229	Digital Signal Processing Laboratory 1
EE 443	Programmable Logic Lab	1 →	No longer in the program	
EE 448	HDL Design and Simulation Lab	1 →	EE 4480	Advanced Digital Design 3
EE 468	Control Systems Laboratory	1 →	EE 4689	Control Systems Laboratory 1
EE 498	Cooperative Education	1 →	EE 4009	Professional Engineering Practice 1
EE 499	Undergraduate Directed Study	1 →	EE 4990	Undergraduate Directed Study 1-3

Additional Courses That may Count Towards Major with Department Approval

EE 1540	Special Topics in Electrical Engineering	1-3
EE 2540	Special Topics in Electrical Engineering	1-3
EE 3540	Special Topics in Electrical Engineering	1-3

General Education Upper Division Theme (12 units)

Upper Division GE

Theme 3 courses (12)

Upper Division General Education Requirements (6 units)

All three courses must come from the same upper division theme.	12	Satisfied by part of the new GE program	6
The department recommends : · Gender in the diversity of Human Experience · Human Maturity and Aging Process and Problems The "Natural Sciences and Mathematics" course must have a biology designation (BIOL)		Students need to take 1 course in UD Block C and 1 course in UD Block D, and one of them shall have (cl) designation. The department recommends students to select courses with (re), (d) if they have not completed diversity and race-ethnicity requirements in low division GE.	