Shiley-Marcos SCHOOL OF ENGINEERING
University of San Diego

Electrical Engineering Degree Plan (2025/26 catalog)

First Year

Fall		Spring	
ENGR 101: Introduction to Engineering	3	ENGR 102: Intro to Electromech Systems or ENGR 103: User-Centered Design	3
MATH 150: Calculus I	4	PHYS 270/270L: Mechanics & Lab	4
COMP 110: Computational Problem Solving	3.5	MATH 151: Calculus II	4
Core Curriculum	3	CHEM 151/151L: General Chemistry I & Lab	4
Core Curriculum	3	Core Curriculum	3
Total Semester Units	**16.5**	**Total Semester Units**	**18**

Second Year

Fall		Spring	
ENGR 102: Intro to Electromech Systems or ENGR 103: User-Centered Design	3	PHYS 272: Intro to Modern Physics or MENG 260: Intro to Thermal Science	3
PHYS 271/271L: Intro to Elec. and Magnet. & Lab	4	MATH 250: Calculus III	4
MATH 310: Applied Math for Sci and Engr I	3	ISYE 330: Engineering Probability and Statistics	3
Core Curriculum	3	MENG 210: Statics	3
Core Curriculum	3	ELEC 201/201L: Electrical Circuits & Lab	4
Total Semester Units	**16**	**Total Semester Units**	**17**

Third Year

Fall		Spring	
ELEC 301: Electronics I	4	ELEC 302: Electronics II	4
ELEC 340: Digital Design	4	ELEC 310: Embedded Systems Design	4
ELEC 311: Semiconductor Elec. Dev.	3	ELEC 350: Signals and Systems	3
MATH 311: Applied Math for Sci and Engr II	3	COMM 103: Public Speaking	3
Core Curriculum	3	Core Curriculum	3
Total Semester Units	**17**	**Total Semester Units**	**17**

Fourth Year

Fall		Spring	
ELEC 320: Principles of Electrical Power	3	ELEC 460: Control Systems Engineering	4
ELEC 430: Applied Electromagnetics	4	ELEC 492: Electrical Eng. Design & Practice II	3
ELEC 470: Communication Princ. & Circuits	4	ELEC Program Elective I	3
ELEC 491W: Electrical Eng. Design & Practice I	4	PHIL 342: Engineering Ethics	3
		Life Science Elective	3
Total Semester Units	**15**	**Total Semester Units**	**16**

Final Semester

Fall	
ELEC Program Elective II	3
Core Curriculum	3
Core Curriculum	3
Core Curriculum	3
Core Curriculum	3
Total Semester Units	**15**

ELEC Life Science Elective	
EOSC 121: Life in the Ocean	4
BIOL - any course numbered between 101 and 225	3-4

Total ELEC Degree Units	**147**