



Bachelor of Science in Applied Science (Electrical Engineering)

Students who do not plan to pursue a career in electrical engineering but who seek a strong foundation in the principles of electrical engineering may choose the Bachelor of Science in Applied Science (Electrical Engineering). The program ensures that the student learns the foundations of electrical engineering through breadth requirements. In addition, there is flexibility in selecting upper-level courses to meet the student's individual objectives. This program also may be attractive for students interested in obtaining multiple degrees, because the requirements are less strict than for the BSEE degree. Historically, students have matched a degree in electrical engineering with degrees in other engineering disciplines, in the natural sciences, in music, in history and in business; other combinations are possible. This also may be an attractive option for students planning graduate studies in a variety of disciplines, including medicine, law or business. This applied science degree is not accredited by the Engineering Accreditation Commission of ABET (<http://www.abet.org>).

The degree requirements include the residency and general requirements of the university and the McKelvey School of Engineering as well as the following:

Courses	Units
Humanities and social sciences electives	18
Mathematics, science and engineering electives	24
Required courses in electrical engineering (ESE 105, ESE 230, ESE 232, ESE 260, ESE 330 and ESE 351)	20
Computer Science requirement (CSE 131)	3
Upper-level elective courses in electrical engineering (ESE 2971, ESE 330–399, ESE 400, ESE 405, ESE 407, ESE 415, ESE 425, ESE 429–499, ESE 503–589)	18
Free electives	37
Total	120

The program must include at least 48 units at the 300 level or higher.

The above program assumes the completion of the following courses:

Code	Title	Units
ESE 318	Engineering Mathematics A	3
ESE 319	Engineering Mathematics B	3
ESE 326	Probability and Statistics for Engineering	3
Math 132	Calculus II	3
Math 217	Differential Equations	3
Math 233	Calculus III	3

Physics 191	Physics I	3
Physics 191L	Physics I Laboratory	1
Physics 192	Physics II	3
Physics 192L	Physics II Laboratory	1