BESA-Electrical & Computer Engineering

Bachelor of Engineering Studies and Arts (BESA)

College of Engineering (ENG) Concentration in Electrical & Computer Engineering   120 units (minimum)

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Mathematics & Science Prerequisites

21-120	Differential and Integral Calculus (Gen Ed)	10
21-122	Integration and Approximation (Gen Ed)	10
21-127	Concepts of Mathematics	10
15-112	Fundamentals of Programming and Computer Science	12
15-122	Principles of Imperative Computation	12
33-141	Physics I for Engineering Students (Gen Ed)	12
33-142	Physics II for Engineering and Physics Students	12

Electrical & Computer Engineering Courses   84 units

18-100	Introduction to Electrical and Computer Engineering (Freshman year; co-req: 21-120)	12
xx-xxx	2nd Introduction to Engineering course, student's choice	12
18-202	Mathematical Foundations of Electrical Engineering * (Sophomore year; prereq: 21-122)	12
18-213	Introduction to Computer Systems (Sophomore year; prereq: 15-122)	12
18-220	Electronic Devices and Analog Circuits (Sophomore year; prereq: 18-100; co-req: 33-142)	12
18-240	Structure and Design of Digital Systems (Sophomore year; prereq: 18-100)	12
18-290	Signals and Systems (Sophomore year; prereq: 18-100)	12

* This course can also be substituted by a combination of two of the following courses: 21-254, 21-259, 21-260, 21-241, 21-242, 21-268.

Electives   36 units minimum

Choose 3 elective courses 18-3xx and above. At least 2 courses should be Area Courses from 1 of the 5 Areas within ECE and 1 course may be an additional Area Course from a second Area, a Coverage Course or ENG with prerequisites in consultation with the concentration advisor.

BESA Free Electives

Take any Carnegie Mellon course. A maximum of 9 units of physical education and/or military science may be counted toward this requirement.