BSCmpE Degree Minimum Requirements

Introduction

The Bachelor of Science in Computer Engineering degree requires a total of 125 credit hours and a minimum Graduation Index of 2.0. Students must qualify for admission into the School of Electrical and Computer Engineering by completion of the First-Year Engineering Program.

ECE Requirements (49 credit hours):

**CmpE Core Curriculum (34 credit hours):** ECE 20100, 20200, 20700, 20800, 25500, 26400, 27000, 30100, 30200, 33700, 36200, 36400, and 36800.

**ECE Seminars (1 credit hour):** ECE 20000 and 40000.

**Advanced CmpE Requirement (8 credit hours):** ECE 43700 and either 46800 or 46900.

**Senior Design Requirement (3-4 credit hours):** ECE 40200, 47700 (taken in one semester) or at least 3 credit hours of EPCS 41100/41200 (taken over 2 consecutive semesters). A prerequisite for all Senior Design courses is completion of the EE Core Curriculum. Some Senior Design Courses may have additional prerequisites.

**CmpE Electives (2-3 credit hours):** Additional approved CmpE Electives to bring total ECE credit hours to at least 49.

**Major-Area GPA:** A GPA of 2.0 or higher in the ECE courses taken to satisfy the ECE Requirements is required to qualify for graduation with the BSCmpE degree.

General Engineering (7-9 credit hours):

**Introduction to Engineering (4-6 credit hours):** ENGR 19500/13100 (Transforming Ideas to Innovation I) & ENGR 19500/13200 (Transforming Ideas to Innovation II) OR ENGR 19500 (Creativity & Innovation in Engineering I) & ENGR 19500 (Creativity & Innovation in Engineering II) OR ENGR 10000 (First-Year Engineering Lectures) & ENGR 12600 (Engineering Problem Solving and Computer Tools)

**Engineering Breadth Requirement (3 credit hours):** Choose one (1) course from the approved Engineering Breadth Requirement list.
Mathematics Requirement (21-22 credit hours):

Choose one of the Math options below. If MA 16100 and/or MA 16200 are taken in place of MA 16500 and/or MA 16600, only 4 of the 5 credit hours for each course can be applied to degree requirements.

**Option 1 (21 credits hours):** MA 16500, 16600, 26100, 26600, 26500 and ECE 36900.

**Option 2 (22 credit hours):** MA 16500, 16600, 26100, 26200, ECE 36900, and one of: MA 30300, 30400, 35100, 36200, 38500, 42500, 51000, or CS 31400.

Science Requirement (18-19 credit hours):

CS 15900, CHM 11500/12300, PHYS 17200, and PHYS 27200 and one of the **Science Selectives:** BIOL 11000, BIOL 11100, CHM 11600/12400, PHYS 31000, PHYS 32200, PHYS 34200.

Liberal Arts Requirement (24-25 credit hours):

**Communication Skills (6-7 credit hours):** ENGL 10600 or 10800 and COM 11400.

**General Education Program Requirement (18 credit hours):** Students must satisfy the requirements of the General Education Program.

Complementary Electives (4-6 credit hours):

Additional courses to bring the total to at least 125 credit hours. These courses should be selected to enhance the students academic program. These courses may include ECE courses beyond those required to complete the ECE Requirements or additional mathematics, science, engineering, and liberal arts courses. See Guidelines for Complementary Electives for more information about the types of courses that are acceptable as Complementary Electives.

Sample Plans-of-Study:

The Sample BSCmpE Plan-of-Study is meant to be used as a guideline for creating a personalized plan-of-study. A student’s personal plan-of-study may differ in the arrangement of courses, number of semesters, and other details depending upon the student’s specific needs and interests.