

Robotics and Mechatronics Engineering, B.S.

University Core Curriculum - 27 hours

The program requirements satisfy 15 of the 42 hours in the Core Curriculum.

- The Intercultural Engagement elective area is satisfied by [EN 3513](#).
- The Mathematics elective area is satisfied by [MTH 1134](#).
- The six hours of the Natural Science elective area, including the lab requirement, are satisfied by CHM 1014 and [PHY 2114](#).
- Three hours of the Social and Behavioral Sciences elective area are satisfied by EN 4343.

The program is exempt from the three hours of the Arts and Humanities elective area and from the final three hours from either the Arts and Humanities or the Social and Behavioral Sciences elective areas.

[Core Curriculum Courses](#)

Engineering Core - 91 hours

CHM 1014 Fundamentals of Chemistry
CS 1113 Introduction to Computing
EE 2213 Digital Electronics
EE 2223 Electrical Circuits
EE 3123 Embedded Systems
EE 4303 Digital Signal Processing
EN 1112 Introduction to Engineering and Computer Science
EN 1223 Concepts in Mechanical Engineering
EN 1323 Concepts in Electrical Engineering
EN 3222 Collaborative Design Lab
EN 3413 Linear Signals and Systems
EN 3423 Control Systems
EN 3513 Intercultural Problem Solving
EN 3713 Robotics
EN 4113 Capstone I
EN 4123 Capstone II
EN 4343 Engineering Economics
ME 2113 Thermal Sciences
ME 2313 Statics and Strength of Materials
ME 3123 Dynamics
ME 3133 Machine Design
ME 3413 Engineering Materials Science
MTH 1134 Calculus I
MTH 1144 Calculus II
MTH 2114 Linear Algebra and Differential Equations
MTH 2123 Vector Calculus
MTH 3183 Probability and Statistics

PHY 2114 General Physics I
PHY 2124 General Physics II

Technical Electives - 6 hours from the following

CS 3443 Machine Learning
CS 3643 Artificial Intelligence
CS 3743 Advanced Computer Programming
EN 3501 Selected Topics
EN 3502 Selected Topics
EN 3503 Selected Topics
EN 3613 Biomedical Engineering Applications 1
EN 3623 Biomedical Engineering Applications 2
ME 2223 Thermodynamics

Minimum total semester hours - 124