

Robotics (ROBT)

ROBT 260 Introduction to Robotics

5 credits , REEL

Quarter(s): S, F, W, Sp

Offers a comprehensive introduction to the field of robotics, focusing on the fundamental principles of robot mechanics, control systems, and programming. Explores the basic components of robotic systems, including actuators, sensors, and controllers, as well as the underlying concepts of robot kinematics and dynamics. Emphasizes hands-on experience, allowing students to design, build, and program simple robotic systems to perform specific tasks. Understand and apply foundational robotic concepts in both theoretical and practical settings. Lab hours are required for this course.

Prerequisites: None

ROBT 270 Robotics in Automation

5 credits , REEL

Quarter(s): S, F, W, Sp

Provides an in-depth exploration of robotics and their role in industrial automation. Learn the principles of robot operation, kinematics, programming, and integration within automated systems. Covers key topics such as robotic motion control, end-effectors, sensors, and safety protocols in automated environments. Gain hands-on experience in programming and configuring industrial robots to perform various tasks in manufacturing and production processes through practical labs and projects. Design, program, and optimize robotic systems for efficient automation solutions. Lab hours are required for this course.

Prerequisite: ROBT 260 Introduction to Robotics