

# ROBOTICS ENGINEERING (BS) / ROBOTICS ENGINEERING (MS) (COMBINED OPTION)

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## Program Overview

### BS Overview

Robotics Engineering degree is a four-year course of study leading to exciting careers and/or advanced studies in robotics and automation. The robotics engineering faculty are dedicated to undergraduate and graduate teaching and to working closely with students at all levels of their study. The program equips students with the practical skills of an engineer combined with the fundamental knowledge and understanding gained through the study of physics. The program allows for a focus on the hardware, modeling and programming all of which are the integral components of robotics.

The application of robotics is a "multi-craft" activity in that it is the blending of multiple disciplines including computer engineering, mechanical engineering, and electrical engineering. A roboticist engages in the design, construction, and programming of robotic systems, including wheeled mobile robots, drones (unmanned aerial systems), autonomous marine vehicles, space systems, and industrial robot manipulators.

### Career Opportunities

Students graduating with a Bachelor's degree in Robotics Engineering typically work in the robotics and automation industry or continue their studies in graduate school, or enter the armed services.

### MS Overview

Master of Science degree in Robotics Engineering offers a comprehensive course of study in robotics. Research opportunities exist for students to actively participate in the program's research activities. The research areas include image processing, computer vision, artificial intelligence, industrial robot manipulators, unmanned aerial vehicles, autonomous ground robots, embedded systems, and microelectronics.

### Career Opportunities

Robotics Engineering graduates typically work in the robotics industry, continue their studies in doctoral programs at premier institutions.