

# MECHATRONICS AND ROBOTICS ENGINEERING

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The Mechatronics and Robotics Engineering (MRE) program addresses the emerging disciplines of mechatronics and robotics engineering, and integrates the traditional disciplines of computer, electrical, and mechanical engineering, with key elements of automatic control, mechanics, electronics, intelligent systems, signal processing and telecommunications systems. This multidisciplinary approach recognizes the ever-increasing complexity of engineering systems, and the societal need for skilled engineers. The MRE program addresses the need for a truly integrated approach to mechatronics and robotics across four years of study. A sequence of experiential project-based design courses will progressively build the students' foundational knowledge and culminate in a capstone design project that could lead to participation in an external design competition. Following a common two years of study (with the first year being direct-entry from high-school), in their third year students can pursue either an electrical or a mechanical stream. In their final year, students will select eight technical electives, with the option of completing one of four recommended concentrations: automation, robotics, biomedical and intelligent systems. This will give them the opportunity to tailor the curriculum to their own interests.