

The Joint NC State College of Engineering - UNC Asheville Bachelor of Science in Engineering with a Concentration in Mechatronics Degree

The Mission

The Mechatronics Program provides engineering students with the knowledge and skills necessary to integrate principles of electrical, mechanical and computer engineering into the design of complex machines.

The program, which is offered jointly by UNC Asheville and NC State College of Engineering on the campus of UNC Asheville, utilizes both live instruction and distance education technology, and blends a rich liberal arts tradition with cutting-edge engineering preparation.

The goal of the program is to produce broadly educated engineers who contribute effectively in the diverse and global modern world.

Program Educational Objectives

Within a few years of graduation, successful alumni of the Joint NC State - UNC Asheville BS in E – Mechatronics Concentration degree should:

1. Attain productive professional careers in mechatronics engineering or related fields.
2. Be committed to upholding and advancing the integrity of the engineering profession.
3. Make decisions with accountability for the social and environmental impact of their engineering practices.
4. Interact effectively with a diversity of individuals while viewing their own work in the broader context of our global society.
5. Attain technical excellence by engaging in life-long learning.

Student Outcomes

Upon graduation, Joint NC State - UNC Asheville BS in E - Mechatronics Concentration students will have attained the following outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies