Mechatronics Technology (MECT)

The Associate of Applied Science degree in Mechatronics Technology prepares students for positions in the modern manufacturing workplace through a blend of electrical/electronic, mechanical, robotic, and automation technologies in which they develop the skills to work as problem-solving technicians in an integrated, multi-disciplinary, high-tech industrial environment. The program is aligned with the Siemens Mechatronics Systems Certification Program. Students can earn Siemens Level 1 and Level 2 Certifications along with additional certifications (through technical electives) in robotics (FANUC), Solidworks (CAD), Vision Systems (Cognex), and in Industrial Safety (OSHA 30-hour).

Core Courses

- Electrical Components3
- Solidworks I (CAD for Mechatronics)
- Pneumatic and Hydraulic Control Circuits
- Mechanical Components and Electrical Motors
- Digital Fundamentals and Programmable Logic Controllers
- Industrial Robots (Recommended) OR
- Process Control Technologies
- Introduction to Totally Integrated Automation
- Automation Systems
- Math for General Studies2
- Motor Controls
- Mechanics and Machine Elements

- Manufacturing Applications (Capstone Course)
- Intro to Physics (Recommended) OR
- Non-calculus Based Physics I

Electives

- Computer Aided Design I
- Solidworks I (CAD for Mechatronics)
- Industrial Safety
- Industrial Equipment
- Industrial Robotics
- Autonomous Robots
- Computer Integrated Manufacturing
- Introduction to Injection Molding
- Injection Molding: Part Problems & Solutions
- Innovative Production & Problem Solving
- Internship in Mechatronics (1-3 credits)
- Internship in Mechatronics (1-3 credits)
- Application and Design of Machine Vision Systems

http://www.roanestate.edu/?8368-Mechatronics-Program-AAS