The Advanced Manufacturing and Mechatronics Certificate of Completion program is designed for those students planning to work in a manufacturing industry. The Mechatronics Certificate of Completion program will prepare students to enter the workforce with the ability to operate and maintain equipment found in a modern manufacturing environment.

As manufacturing advances into a more automated production system, a higher level of technical expertise is required of the labor force. The certificate holders will have experience with the operation and maintenance of computer numeric controlled (CNC) machines and programmable logic controllers (PLCs), as well as a working knowledge of basic electronics, pneumatic, and mechanical systems.

**First Semester**

- **MATH 161** or higher (not MATH 171 or MATH 181)  
  **Math General Education Requirement** 3-6 cr.
- **ELET 144**  
  **DC/AC Electric Circuits** 4 cr.
- **ENGR 191**  
  **Autocad 2D Basics I** 3 cr.
- **MNFG 102**  
  **Manufacturing Process** 3 cr.

  **13-16 cr.**

**Second Semester**

- **ELET 150**  
  **Automated Control Systems** 4 cr.
- **MECH 150**  
  **Introduction to Hydraulics and Pneumatics** 4 cr.
- **MNFG 114**  
  **Principles of Quality Control for Manufacturing** 3 cr.
- **MNFG 140**  
  **Introduction to CNC** 3 cr.

  **14 cr.**

**Total Credits** 27-30 cr.

Board of Trustees Approval Date: March 29, 2018