# ADVANCED MANUFACTURING TECHNOLOGY

**Award: Associate of Applied Science Degree**
**Major: Advanced Manufacturing Technology**
**Additional Program Information:** https://www.brcc.edu/academics/programs/advanced-manufacturing/
**Potential Additional Funding Information**: https://www.brcc.edu/g3/

This degree is designed to develop multi-skilled technicians and operators with talents in the complete manufacturing process and emerging technologies of advanced process automation, digital design/manufacturing and continual process improvement, as well as the capability for higher level problem-solving, innovation, and leadership. Graduates will have the capacity and adaptability to perform on a team of researchers, engineers, technicians and trades craftsmen in the advanced manufacturing environment, developing new technology applications and improved operations.

## Required Courses
## Curriculum

| Code | Title | Credit Hours |
|---|---|---|
| **General Education** | | |
| Select one of the following: | | 3 |
| ENG 111 | College Composition I | |
| ENG 115 | Technical Writing | |
| Select one of the following: | | 3 |
| MTH 111 | Basic Technical Mathematics | |
| MTH 161 | Precalculus I | |
| Social/Behavioral Science Elective (https://catalog.brcc.edu/programs-study/general-education-aas/#social) | | 3 |
| Literature/Humanities/Fine Arts Elective (https://catalog.brcc.edu/programs-study/general-education-aas/#literature) | | 3 |
| General Education Elective (https://catalog.brcc.edu/programs-study/general-education-aas/) | | 3-4 |
| **Student Development** | | |
| SDV (https://catalog.brcc.edu/programs-study/sdv/) | Student Development | 1 |
| **Technical Program Core Courses** | | |
| BUS 200 | Principles of Management | 3 |
| ELE 123 | Electrical Applications I | 2 |
| ETR 113 | D.C. and A.C. Fundamentals I | 3 |
| IND 165 | Principles of Industrial Technology I | 4 |
| IND 181 | World Class Manufacturing I | 3 |
| IND 251 | Automated Manufacturing Systems I | 3 |
| MAC 156 | Mechanisms I | 3 |
| MEC 161 | Basic Fluid Mechanics - Hydraulics/Pneumatics | 4 |
| Select one of the following: | | 2-3 |
| CAD 140 | Technical Drawing | |
| CAD 161 | Blueprint Reading I | |
| **Technical Specialization Core Courses** | | |
| Technical Specialization Core Courses | | 14-15 |
| **Approved Technical Electives** | | |
| Approved Technical Electives | | 3-4 |
| **Total Credit Hours** | | **60-64** |

Students should enroll in the suggested technical elective(s) specified in each specialization.

## Certificates
## Applied Mechatronics I

**Award: Career Studies Certificate**
**Potential Additional Funding Information:** https://www.brcc.edu/g3/

Purpose: To provide a broad overview of the major areas involved in the day-to-day operations of a manufacturing facility, including leadership, process improvement, financial management, and information systems. The completed career studies certificate will provide a foundation for those students seeking further study in the area of manufacturing management.

| Code | Title | Credit Hours |
|---|---|---|
| ELE 123 | Electrical Applications I | 2 |
| ETR 113 | D.C. and A.C. Fundamentals I | 3 |
| MAC 156 | Mechanisms I | 3 |
| MEC 161 | Basic Fluid Mechanics - Hydraulics/Pneumatics | 4 |
| Select one of the following: | | 3 |
| MTH 111 | Basic Technical Mathematics | |
| MTH 161 | Precalculus I | |
| SDV (https://catalog.brcc.edu/programs-study/sdv/) | Student Development | 1 |
| **Total Credit Hours** | | **16** |

# Applied Manufacturing

**Award: Career Studies Certificate**
**Potential Additional Funding Information:** https://www.brcc.edu/g3/

The Applied Manufacturing certificate provides a broad overview of the major areas involved in the day-to-day operations of a manufacturing facility, including leadership, process improvement, financial management, and information systems. The completed career studies certificate will provide a foundation for those students seeking further study in the area of manufacturing management.

| Code | Title | Credit Hours |
|---|---|---|
| Select one of the following: | | 2-3 |
| CAD 140 | Technical Drawing | |
| CAD 161 | Blueprint Reading I | |
| IND 165 | Principles of Industrial Technology I | 4 |
| IND 181 | World Class Manufacturing I | 3 |
| IND 251 | Automated Manufacturing Systems I | 3 |
| Technical Specialization Core Courses | | 4 |
| **Total Credit Hours** | | **16-17** |

Students should enroll in the suggested technical elective(s) specified in each specialization