## AUTOMATED MANUFACTURING SYSTEMS, A.A.S.

The Manufacturing Technology program provides training in a wide variety of skill areas of product manufacturing and services. The four degree options in the program are Automated Manufacturing Systems, Drafting/Design, Manufacturing Technology and Manufacturing Engineering Technology. Automated Manufacturing is designed to prepare the student for careers in computer-aided manufacturing, robotics and numerical control. Drafting/Design prepares the students for careers in the drafting and computer-aided design areas. Manufacturing Technology provides the student with a broad background in the areas of machining, drafting and fluid systems so as to prepare them for entry level positions as machine operators, machine maintenance personnel and quality control personnel. The Manufacturing Engineering Technology degree prepares students for entry-level engineering technician positions in manufacturing. This degree requires 66 credits in program requirements, program electives and general education in the courses listed below.

For more information about Manufacturing Technology, please visit the program page (http://www.cod.edu/manufacturing/).

## **Degree Requirements**

Field of Study Code: MANUF.AAS.AUTO

| Code                                     | Title                                    | Credits |
|--|--|---------|
| Program Requirements                     |  |         |
| MANUF 1101                               | Industrial Design/CAD                    | 3       |
| MANUF 1104                               | Technical Mechanics                      | 2       |
| MANUF 1110                               | Metrology                                | 3       |
| MANUF 1121                               | Physical Metallurgy                      | 3       |
| MANUF 1151                               | Machine Shop I                           | 3       |
| MANUF 1180                               | Quality Control                          | 3       |
| MANUF 2202                               | Solid Modeling and Design                | 3       |
| MANUF 2251                               | Computer Numerical Control (CNC)         | 3       |
| MANUF 2253                               | Computer-Aided Manufacturing (CAM)       | 3       |
| MANUF 2280                               | Industrial Safety                        | 2       |
| ELECT 1100                               | Electricity and Electronics Fundamentals | 3       |
| ELMEC 1141                               | Hydraulics and Pneumatics                | 3       |
| ELMEC 1171                               | Introduction to Robotic Technology       | 3       |
| ELMEC 1190                               | Intro to Programmable Logic Controllers  | 3       |
| <b>Program Electives</b>                 |  |         |
| Select six credits from the following: 1 |  | 6       |
| MANUF 1153                               | Advanced Machine Processes               |         |
| MANUF 1160                               | Technical Static & Strength of Material  |         |
| MANUF 2201                               | Geometric Dimensioning and Tolerancing   |         |
| <b>MANUF 2203</b>                        | Manufacturing Processes and Design       |         |
| MANUF 2206                               | Mechanical Computr-Aided Drafting/Design |         |
| MANUF 2207                               | Tool Design                              |         |
| MANUF 2271                               | Robotic Application                      |         |
| <b>General Education</b>                 |  |         |
| Select 20 credits <sup>1</sup>           |  | 20      |

Communications: Written (3 credits)

Communications: Oral (3 credits)

Physical/Life Sciences (3-5 credits)

Mathematics (3-5 credits, 1000 level or above)

Humanities (3 credits)

Social & Behavioral Science (3 credits)

## **General Education Requirements**

For general education requirements for the A.A.S. degree, please visit the A.A.S. degree catalog page (https://catalog.cod.edu/associate-degree-programs/associate-applied-science-degree/).

<sup>&</sup>lt;sup>1</sup> In addition to the courses listed above.