

# Advanced Manufacturing, Certificate of Proficiency

The Certificate of Proficiency in Advanced Manufacturing is designed to provide entry-level manufacturing technician skills that are needed in expanding the manufacturing industry in Utah Valley. Although the term "advanced" might be confusing for a program providing entry-level skills, nationally this is the term that is being used. The program focuses on the basic skills used in advanced manufacturing processes expanding across the nation. The components of the certificate will include basic manufacturing skills with hands-on activities on equipment used in local facilities. Graduates of this certificate will have a basic understanding of advanced manufacturing operations with an emphasis on solving problems in the organization. While this program offers an entry-level certification for individuals pursuing a career in manufacturing, it has been designed to enable individuals the opportunity to continually expand and upgrade their applied skills as well as to maintain a thorough mastery of evolving manufacturing technologies.

## Program Requirements

| Code                                      | Title   | Credit Hours      |
|---|---|-------------------|
| <b>Total Credit Hours</b>                 |   | <b>18</b>         |
| <b>Discipline Core Requirements</b>       |   | <b>18 Credits</b> |
| TECH 1050                                 | Manufacturing Processes and Systems   | 3                 |
| TECH 2050                                 | Introduction to Quality Management  | 3                 |
| TECH 2010                                 | Supervision in Technology   | 3                 |
| TECH 281R<br>or TECH 1000                 | Internship in Technology (1-3)<br>Experiential Credit Portfolio Development and Assessment            | 1                 |
| IM 2010                                   | Business Computer Proficiency   | 3                 |
| STAT 1040<br>or STAT 1045<br>or EGDT 1600 | Introduction to Statistics QL<br>Introduction to Statistics with Algebra QL<br>Technical Math Algebra | 3                 |
| EGDT 1000<br>or EGDT 1071                 | 3 Dimensional Modeling--Solidworks  | 2                 |

## Graduation Requirements

1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 5 credit hours through course attendance at UVU.

## Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

### First Year

| Semester 1                     |  | Credit Hours |
|--------------------------------|--|--------------|
| TECH 1050                      | Manufacturing Processes and Systems        | 3            |
| TECH 2050                      | Introduction to Quality Management         | 3            |
| Complete one of the following: |  | 3            |
| STAT 1040                      | Introduction to Statistics QL              |              |
| STAT 1045                      | Introduction to Statistics with Algebra QL |              |
| EGDT 1600                      | Technical Math Algebra                     |              |
| TECH 2010                      | Supervision in Technology                  | 3            |
| <b>Credit Hours</b>            |  | <b>12</b>    |
| <b>Semester 2</b>              |  |              |
| IM 2010                        | Business Computer Proficiency              | 3            |
| EGDT 1000<br>or EGDT 1071      | or 3 Dimensional Modeling--Solidworks      | 2            |

|                           |   |           |
|---------------------------|---|-----------|
| TECH 281R<br>or TECH 1000 | Internship in Technology<br>or Experiential Credit Portfolio Development and Assessment | 1         |
| <b>Credit Hours</b>       |   | <b>6</b>  |
| <b>Total Credit Hours</b> |   | <b>18</b> |

## Program Learning Outcomes

1. Graduates will have the ability to apply technical and management principles in an advanced manufacturing environment to achieve operational excellence.
2. Graduates will apply technical skills such as quality assurance, risk analysis, process management, product management, and other necessary specialties in the field of technology management.