

**Cover/Signature Page - Abbreviated Template/Abbreviated Template with Curriculum**

**Institution Submitting Request:** Utah Valley University  
**Proposed Title:** Certificate of Proficiency in Mechanical Design Technology  
**School or Division or Location:** College of Technology and Computing  
**Department(s) or Area(s) Location:** Engineering Graphics and Design Technology  
**Recommended Classification of Instructional Programs (CIP) Code<sup>1</sup> (for new programs):** 15.1306  
**Proposed Beginning Date (for new programs):** Fall 2014  
**Institutional Board of Trustees' Approval Date:** *Pending*

**Proposal Type (check all that apply):**

| Regents' General Consent Calendar Items  |  |
|--|--|
| <i>R401-5 OCHE Review and Recommendation; Approval on General Consent Calendar</i> |  |
| SECTION NO.  | ITEM   |
| 5.1.1  | <input type="checkbox"/> Minor*  |
| 5.1.2  | <input type="checkbox"/> Emphasis*   |
| 5.2.1  | <input checked="" type="checkbox"/> Certificate of Proficiency*                    |
| 5.2.3  | <input type="checkbox"/> Graduate Certificate*                                     |
| 5.4.1  | <input type="checkbox"/> New Administrative Unit                                   |
|  | <input type="checkbox"/> Administrative Unit Transfer                              |
|  | <input type="checkbox"/> Administrative Unit Restructure                           |
|  | <input type="checkbox"/> Administrative Unit Consolidation                         |
| 5.4.2  | <input type="checkbox"/> New Center  |
|  | <input type="checkbox"/> New Institute   |
|  | <input type="checkbox"/> New Bureau  |
| 5.5.1  | <input type="checkbox"/> Out-of-Service Area Delivery of Programs                  |
| 5.5.2  | <input type="checkbox"/> Program Transfer  |
|  | <input type="checkbox"/> Program Restructure                                       |
|  | <input type="checkbox"/> Program Consolidation                                     |
| 5.5.3  | <input type="checkbox"/> Name Change of Existing Programs                          |
| 5.5.4  | <input type="checkbox"/> Program Discontinuation                                   |
|  | <input type="checkbox"/> Program Suspension  |
| 5.5.5  | <input type="checkbox"/> Reinstatement of Previously Suspended Program             |
|  | <input type="checkbox"/> Reinstatement of Previously Suspended Administrative Unit |

**Chief Academic Officer (or Designee) Signature:**

I certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

\_\_\_\_\_  
**Signature**  
**Printed Name:** Ian Wilson

**Date:** *MM/DD/YEAR*

\_\_\_\_\_

**Program Request - Abbreviated Template**  
**Utah Valley University**  
**Certificate of Proficiency in Mechanical Design Technology**  
*04/10/2013*

**Section I: Request**

The Engineering Graphics and Design Technology Department at Utah Valley University requests permission to offer a Certificate of Proficiency in Mechanical Design Technology effective Fall 2014.

**Section II: Need**

The Certificate of Proficiency in Mechanical Design Technology will be dedicated to teaching the technical and functional elements of mechanical design, and will educate students in the process of taking mechanical related projects from conceptual design, to model, to completed fabrication documents. Students will be required to take the mechanical related courses currently offered in the Engineering Graphics and Design Technology (EGDT), Drafting Technology program. From these courses students will learn the basics of mechanical drafting and design, and be trained in industry standard two- dimensional and three-dimensional software packages. Students will also take courses in electrical design and advanced mechanical design. A student with a Certificate of Proficiency in Mechanical Design Technology will be prepared for an entry level job as a mechanical drafter/designer. They can increase their education, training, and employability by completing the Associate of Applied Science in Drafting Technology.

According to the Bureau of Labor Statistics (BLS), demand nationally for Drafters/Designers in general is projected to increase by six percent between 2010 and 2020. These statistics are known to vary depending on the specialty area. The BLS projects that within the mechanical area employment growth is expected to be 11 percent during this same time period.

According to the Utah Department of Workforce Services the projected growth rate for Mechanical Drafters/Designers in the state is 2.6 percent annually or a total of 26 percent between 2010 and 2020.

This certificate will also help to achieve Utah's Prosperity 2020 objectives of: (1) having 66 percent of the state's population with postsecondary certificates or degrees, and (2) being a STEM Top Ten Center for technology jobs and business.

**Section III: Institutional Impact**

The EGDT department is prepared to offer this certificate immediately. No additional courses need to be offered. No additional faculty, equipment, or resources are projected to be required unless enrollments increase dramatically. All faculty have a minimum of ten years industry experience and training directly related to the subject matter. The same professional development activities currently required for the Associate in Applied Science in Drafting Technology degree will be sufficient. Enrollments in affiliated departments or programs should not be affected. No administrative structure needs to be changed.

**Section IV: Finances**

As this certificate requires no new courses or sections, there will be no additional financial needs required to offer this certificate. All faculty and staff are currently in place, and no additional classroom space will be required.

## Section V: Program Curriculum

### All Program Courses (with New Courses in Bold)

| Course Prefix and Number       | Title  | Credit Hours |
|--------------------------------|--|--------------|
| Required Courses:              |  |              |
| EGDT 1000                      | Introduction to Engineering Drawing and Technical Design                               | 2            |
| EGDT 1010                      | Electrical – Electronic Drafting   | 3            |
| EGDT 1040                      | Computer Aided Drafting – AutoCAD  | 3            |
| EGDT 1070 or<br>EGDT 1071      | 3 Dimensional Computer Modeling-Inventor<br>3 Dimensional Computer Modeling-Solidworks | 3            |
| EGDT 1200                      | Mechanical Drafting  | 3            |
| EGDT 2200                      | Advanced Mechanical  | 3            |
| <b>Total Number of Credits</b> |  | <b>17</b>    |

### Program Schedule

| Fall of First Year<br>(Course Prefix and Number)   | Course Title   | Credit Hours |
|--|--|--------------|
| EGDT 1000  | Introduction to Engineering Drawing and Technical Design                               | 2            |
| EGDT 1070 or<br>EGDT 1071                          | 3 Dimensional Computer Modeling-Inventor<br>3 Dimensional Computer Modeling-Solidworks | 3            |
|  | <b>Semester total:</b>   | <b>5</b>     |
| Spring of First Year<br>(Course Prefix and Number) | Course Title   | Credit Hours |
| EGDT 1040  | Computer Aided Drafting - AutoCAD  | 3            |
| EGDT 1200  | Mechanical Drafting  | 3            |
|  | <b>Semester total:</b>   | <b>6</b>     |
| Fall of Second Year<br>(Course Prefix and Number)  | Course Title   | Credit Hours |
| EGDT 1010  | Electrical – Electronic Drafting   | 3            |
| EGDT 2200  | Advanced Mechanical  | 3            |
|  | <b>Semester total:</b>   | <b>6</b>     |