

COMPUTER-AIDED DRAFTING, CERTIFICATE OF COMPETENCY (DDTC)

Effective: Fall 2004

In this program, students will learn to manage computer systems for drawing production, information storage, retrieval and communication in the engineering and design workplace. As they develop computer aided drafting skills, they will explore manufacturing, mechanical and architectural engineering and construction applications.

This program is intended, primarily, to serve as computer training for individuals who have previous experience as manual "board" drafters and who already possess a working knowledge of technical drawings. However, though there is no requirement of prior technical experience, individuals desiring an elementary introduction to the fields of engineering drafting and design will be well served by this curriculum.

Students may, through the use of specified course alternatives, choose to pursue a basic 2D option with added emphasis in elementary blueprint reading and construction applications, or a 3D parametric modeling option with emphasis on advanced software features and mechanical/manufacturing applications.

Program Outcomes

- Create two- and three-dimensional technical design models and drawings to document solutions for defined customer problems.
- Use CAD tools in applying the principles of descriptive geometry and the techniques of graphic construction to the process of documenting design intent.
- Execute computer generated plane and 3D geometric forms, as well as object viewing techniques, to describe and present a design concept.
- Apply CAD tools and techniques in the execution of working, multiview, assembly and 3D model drawings.

Full-Time Academic Plan

The College will award a certificate of competency to students who complete an approved credit-bearing career program that requires less than 30 credits. General education courses may not be required for programs that have less than 30 credits. The student must have a cumulative GPA of 2.0 or higher. At least six (6) credits, or 50% of the total credits required, whichever is greater, must be completed at Delaware County Community College.

| First Semester | | Hours |
|-----------------------|---|-----------|
| TCC 112 | CADD Graphics | 3 |
| TCC 121 | Project Management Processes | 3 |
| TCC 122 | 2-D CADD | 3 |
| TCS 100 or ARC 121 | Construction Blueprint Reading or Architectural Graphics I | 3 |
| TDD 216 or TDD 227 | Three Dimensional CADD or Advanced CADD | 3 |
| Hours | | 15 |
| Total Hours | | 15 |

Part-Time Academic Plan

| Code | Title | Hours |
|------------------------|--|-----------|
| First Semester | | |
| TCC 112 | CADD Graphics | 3 |
| TCC 122 | 2-D CADD | 3 |
| Second Semester | | |
| TCC 121 | Project Management Processes | 3 |
| TCS 100 or ARC 121 | Construction Blueprint Reading Architectural Graphics I | 3 |
| Third Semester | | |
| TDD 216 or TDD 227 | Three Dimensional CADD Advanced CADD | 3 |
| Total Hours | | 15 |

Career