NOTE: This course is not designed for transfer credit.

Catalog Course Description:

Expands the knowledge and use of AutoCAD software commands with the continuation of training begun in CID 1104. The course covers topics involving the creation and manipulation of orthographic and 3 dimensional drawings, introduction of solid modeling, the concept of creation and management of symbol libraries, and rendering the models. The student will be able to use AutoCAD to enhance their performance in producing various drafting projects, create a three-dimensional model and turn the model into a fully detailed set of working drawings.

Entry Level Standards:

Must have college level English and math skills.

Prerequisite:

CID 1104

Textbook(s) and Other Reference Materials Basic to the Course:

Required Text:
Harnessing AutoCAD 2002 Thomas A. Stellman, and G.V. Krishnan (International Thomson Publishing)

Reference:
Technical Drawing MacMillion (Gieseacke)
AutoCAD 101 Joan Davis (Kendall/Hunt Publishing)

Supplies:
Zip disks (2 or more) or 3.5 Floppy disks (at least 10)

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Review of AUTOCAD drawing commands and 2002 changes</td>
</tr>
<tr>
<td>2</td>
<td>Review of AUTOCAD drawing commands and 2002 changes</td>
</tr>
<tr>
<td>3</td>
<td>Creation of prototype drawings</td>
</tr>
<tr>
<td>4</td>
<td>Dimensioning and review of geometric construction</td>
</tr>
</tbody>
</table>
II. Course Objectives*:

A. Create and use prototype drawings. II, V
B. Use all drawing commands to make professional quality drawings. II, III
C. Create and use symbols and blocks. II, IV, V
D. Understand creation and manipulation of three-dimensional images. II, V
E. Understand Windows environment, use of other software and standards as required in a professional environment. II, V
F. Use various computer applications to communicate in professional environment. VII

*Roman numerals after course objectives reference goals of the CID program.

III. Instructional Processes*:

Students will:

1. Use the LIMITS, SCALE, UNITS, GRID, and LAYER commands to create a prototype drawing for a particular purpose. Problem Solving and Decision Making Outcome, Active Learning Strategies, Technological Literacy Outcome
2. Create 3D drawings. Problem Solving and Decision Making Outcome, Active Learning Strategies, Transitional Strategy
3. Develop set of individual working drawings for an assembly project. Problem Solving and Decision Making Outcome, Technological Literacy Outcome
4. Generate proposals using a word processor and other software as required. Use the computer for interactive communication. Technological Literacy Outcome, Communication
Outcome

*Strategies and outcomes listed after instructional processes reference Pellissippi State’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Create and use a prototype drawing. A
2. Demonstrate knowledge of drawing, dimensioning and modifying commands to create 2-D mechanical drawings. A
3. Create 3-dimensional models of mechanical parts. A, G
4. Convert 3-dimensional models to the required orthographic 2-D drawings. A, G
5. Print in model and paperspace to specified scales. A, G
6. Use the xreference command to create and assembly drawings. G

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures: 75% of grade

The purpose of this class is to provide more practice with complex drawings. Students will be evaluated on the correctness of assigned drawings, formal tests, and quizzes (75% of total grade).

B. Laboratory Expectations: 25% of grade

A final set of working drawings of a project that includes 3-D solid model, render drawing, and all orthographic drawings as required to sufficiently describing the part/part for manufacture or construction (25% of total grade). This project is practice for real world applications and in preparation for the final CIDD project class.

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A

E. Grading Scale:

A  90-100%
B+ 85-89%
B  80-84%
C+ 75-79%
C  70-74%
D  60-69%
F  59% and below
VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic and Student Affairs, may have requirements that are more stringent.

B. Academic Dishonesty:

It is expected that students will work together to solve problems, however students are expected to do their own work unless specifically assigned otherwise. Sharing or copying others work is un-ethical and will be discounted. A pattern of un-ethical behavior will result in the student being expelled from the class. Copying software will be considered theft.