TECHNICAL ILLUSTRATION W/LAB
CID 1110

Class Hours: 3.0  Credit Hours: 4.0
Laboratory Hours: 3.0  Date Revised: Fall 2001

NOTE: This course is not designed for transfer credit.

Catalog Course Description:
A coverage of basic sketching skills and the communication concepts of describing physical objects graphically through the use of line drawings, techniques of shade and dimensional representation using perspective methods. The student will learn how to represent an object, building or other shapes using freehand sketching and orthographic projection methods such as isometric, diametric, trimetric and perspective projection methods. Both one-point and two-point perspectives will be covered.

Entry Level Standards:
Must have college level English and math skills.

Prerequisites:
None

Corequisite:
CID 1100

Textbook(s) and Other Reference Materials Basic to the Course:
Reference:
Drawing on the Right Side of the Brain
Fundamentals of Technical Drawing, Giesecke, Mitchel, Spencer & Hill, MacMillan. Materials:
Sketchbook
Soft lead pencils (b, 2b, or 3b)
Kneaded eraser
Drafting equipment used in CID 1100
Graph paper: Isometric & Orthographic
Tracing paper
Pens
Notebook

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Class Objectives, pre-instruction drawings, and examples</td>
</tr>
</tbody>
</table>
2 Sketching & Graphic Problem Solving
3 Sketching edges & geometry
4 Sketching planes and shapes
5 Sketching planes and edges relative to each other
6 Sketching shades
7 Sketching texture
8 Entourage- people & plants
9 Isometric Projection
10 Dimetric Projection & Adobe Photoshop
   (Note: Adobe Photoshop will be used for image enhancement weeks 10 - 16)
11 Oblique Projections
12 Oblique Projections
13 Two Point perspectives
14 Final projects
15 Final projects
16 Final Exam

II. Course Objectives*:

A. Communicate in sketch form. I, III, V, VI
B. Construct Isometric, Dimetric and Oblique drawings. I, III
C. Construct two point perspective drawings. I, III, V
D. Use graphics as a problem solving process. I, III, V
E. Use a computer 'paint' program to enhance graphic images. I, III, V

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

III. Instructional Processes*:

Students will:

1. Use freehand drawing to examine and represent real objects. Technological Literacy Outcome
2. Use freehand drawing to solve problems. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Active Learning Strategy
3. Work as a team member with other students to produce drawings. Communication Outcome, Active Learning Strategy, Information Literacy Outcome, Transitional Strategy
4. Use traditional broad drawing concepts and skills to produce three view, oblique and isometric drawings. Technological Literacy Outcome, Active Learning Strategy

5. Use CAD applications to generate three view, oblique, isometric & perspective drawings. Technological Literacy Outcome, Active Learning Strategy

6. Use Adobe Photoshop to enhance images. Technological Literacy Outcome, Problem Solving and Decision Making Outcome, Active Learning Strategy

7. Use freehand sketching techniques to enhance traditional drawing presentation Technological Literacy Outcome, Problem Solving and Decision Making Outcome, Active Learning Strategy

8. Use CAD application to generate plots according to industry standards. Technological Literacy Outcome, Communication Outcome, Numerical Literacy Outcome, Personal Development 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. Draw basic geometry. A
2. Analyze objects and break them down into basic forms. A
3. Examine proportions and represent them graphically. A
4. Analyze and represent a variety of textures. A
5. Draw accurate and believable shades. A,C
6. Combine textures, shadows, proportions into one comprehensible drawing. A
7. Construct isometric drawing of object. B
8. Construct Dimetric drawing of object. B
9. Construct oblique drawing of object B
10. Use Adobe Photoshop as graphic tool E
11. Construct one point perspective. C
12. Construct two-point perspective. C
13. Evaluate different viewpoints for perspectives. C
14. Evaluate and apply highlights for perspective drawing. A,C
15. Analyze and apply textures for perspective drawing. A,C
16. Plan perspective or axonometric presentation drawing. C
17. Complete perspective or axonometric presentation drawing. C
18. Critique own work and classmates work. A,C
19. Use drawing to solve problems. D

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

V. Evaluation:

A. Testing Procedures:

A final test or project will be given.

B. Laboratory Expectations:

1. Exercises and projects require laboratory attendance.
2. It is expected that many assignments will have to be completed outside of class.
3. Many exercises and projects will consist of drawings, which must be completed outside of scheduled class times. This is known as homework.
4. The student will be graded on participation in lab, completion of assignments and skill development (improvement).

C. Field Work:

1. The student will be required to observe and represent "real life" situations.
2. The student will be expected to research additional resources (library, professionals, staff, etc.)
3. The student will be required to collect photographs and drawings from other sources.

D. Other Evaluation Methods:

N/A

E. Grading Scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B+</td>
<td>85-89</td>
</tr>
<tr>
<td>B</td>
<td>80-84</td>
</tr>
<tr>
<td>C+</td>
<td>75-79</td>
</tr>
<tr>
<td>C</td>
<td>70-74</td>
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<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>59 and below</td>
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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 (Pellissippi State Catalog). 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.