

PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE  
MASTER SYLLABUS

**ARCHITECTURAL DRAWING W/LAB  
CID 1210**

**Class Hours: 3.0**

**Credit Hours: 4.0**

**Laboratory Hours: 3.0**

**Revised: Spring 2005**

**Catalog Course Description:**

An introduction to architectural drafting. The course will use CAD software to teach the basic elements of architectural drafting. The students will produce a set of architectural drawings that will include floor plan, site plan, building section, wall section and elevations. The computer will also be used to calculate quantities and produce reports.

**Entry Level Standards:**

Basic knowledge of a CAD application such as AutoCAD or Microstation is required.

**Prerequisites:**

CID 1100

**Corequisites:**

None

**Textbook(s) and Other Course Materials:**

Textbook:

*Architectural Drafting Using AutoCAD 2004. Palma, Madsen, Goodheart-Wilcox Publisher*

Reference:

*Architectural Graphic Standards (McGraw-Hill)*

*Sweets Building Products Catalog & Sweets On-line*

*Standard Building Code (Southern Building Code Congress International, Inc.)*

Materials:

1. Notebook
2. Architectural scale
3. Digital storage media

**I. Unit/Topic Basis:**

| <b>Unit</b> | <b>Topic</b>  |
|-------------|---|
| 1           | Class objectives and organization; Login procedures for computer.                     |
| 2           | Architectural drawing concepts; CAD commands and standards for Architectural drafting |
| 3           | Architectural material symbols  |

- 4 Accessing reference information on Internet
- 5 Floor plans and relationship of the different plans
- 6 Annotation as applied to Architectural drafting
- 7 Sections as applied to Architectural drafting; Building sections and wall sections
- 8 3 Views as applied to Architectural drafting; Elevations, Roof plan.
- 9 Codes and other legal requirements
- 10 Using Word and Excel to communicate and document
- 11 Organization and output of documents required for construction
- 15 Final Exam; Complete drawings, plot all drawings as set, turn in notebook

## II. Course Objectives\*:

- A. Develop skills and knowledge necessary to convey basic information required by the building industry. (a,b )
- B. Have a basic knowledge of material symbology and equipment symbols and applications. (a )
- C. Be able to produce an Architectural drawing on the computer. (a )
- D. Have knowledge of basic building material sizes and applications. (a )
- E. Have knowledge of resource materials. (a )
- F. Have basic understanding of other computer applications such as word processors and databases. (d,g )
- G. Introduce office practices and standards. (a,i )

\*Alphabet letters (a-k) after course objectives reference CID Program Outcomes (as required by ABET).

## III. Instructional Processes\*:

Students will:

1. Use the "graphic primitives" to generate common symbols used in the construction industry. *Technological Literacy Outcome*
2. Import graphic files, scale to standard industry requirements and use to generate standard construction details. *Technological Literacy Outcome, Active Learning Strategies*
3. Use standard industry reference materials in electronic format and hardcopy. *Technological Literacy Outcome, Information Literacy Outcome*
4. Use CAD applications to initiate, document, revise and resubmit typical architectural drawings. *Technological Literacy Outcome, Transitional Strategies*
5. Use dimensioning tools to complete and properly dimension final drawings as well as use

annotation tools to completely annotate final drawing. *Technological Literacy Outcome, Active Learning Strategies*

6. Use word processor and spreadsheet to generate reports, memos and calculations. *Communication Outcome, Technological Literacy Outcome, Mathematic Outcome, Active Learning Strategies*
7. Using CAD application to generate plots according to industry standards. *Technological Literacy Outcome, Communication Outcome, Active Learning Strategies, Transitional Strategies*
8. Will complete a basic set of architectural drawings of professional quality. *Technological Literacy Outcome, Active Learning Strategies*

\*Strategies and outcomes listed after instructional processes reference TBR'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. Produce basic drawings required for construction. A, B, C, D, G
2. Demonstrate the relationship of the different plan views. A
3. Demonstrate the relationship of plans, sections, and details. A
4. Demonstrate the relationship of drawings, schedules, and specifications. A, F, G
5. Reinforce understanding of building materials, dimensions and uses. A,B,D,E
6. Use the computer to reinforce the relational concept or architectural drawings. C
7. Use ANSI standards for text & dimensions A,C, G
8. Use reference materials (product literature, tables, charts and example drawings). E,G
9. Use codes (state and local). E, G
10. Reinforce skill required for board drawings. A
11. Use computer to produce set of architectural drawings. A, B, C, G
13. Plot set of drawings for evaluation. A, C
14. Expose students to process of design. A, G
15. Use computer to write reports and proposals. E, F, G

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

## **V. Evaluation:**

### **A. Testing Procedures:**

Tests, quizzes, timed drawings can be used at the instructor's discretion.

### **B. Laboratory Expectations:**

Drawings will be assigned for completion as laboratory exercises. These drawings will comprise the majority of student's grade.

Reports and other assignments will be assigned for completion as laboratory exercises.  
NOTE: Laboratory assignments can not be completed during the scheduled class times. Students will be expected to schedule laboratory times to complete assignments.

### **C. Field Work:**

The student will be expected to research additional resources (library, films, professionals, professional documents, staff, etc.).

### **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:**

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices: Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments. In addition to other possible disciplinary sanctions that may be imposed as a result of academic misconduct, the instructor has the

authority to assign either (1) an F or zero for the assignment or (2) an F for the course.

NOTE: It is expected and desirable that CID students assist other students. However, students may only submit work completed by themselves.

C. Accommodations for disabilities:

If you need accommodation because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please inform the instructor immediately. Privately after class or in the instructor's office.

To request accommodations students must register with Services for Students with Disabilities: Goins 127 or 131, Phone: (865) 539-7153 or (865) 694-6751 Voice/TDD.