PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

ARCHITECTURAL DETAILNG W/LAB
CID 2175 (formerly CID 2170)

Class Hours: 3.0  Credit Hours: 3.0
Laboratory Hours: 1.0  Revised: Spring 05

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

A continuation of concepts covered in CID 1210. More detailed drawing requirements will be covered as well as the need for more specialized drawings. The student will organize and draw a set of detailed drawings consisting of wall sections, large-scale details of doors, windows & stairs, isometric details, multiple plans, interior elevations, and details required for special construction.

Entry Level Standards:

Must have college level English and math skills.

Prerequisite:

CID 1210

Textbook(s) and Other Course Materials:

Required Text:
Architectural Drafting & Design, Jeffis/Madsen

References:
Architectural Graphic Standards
Southern Standard Building Code
Sweets On-line Catalogue

CertainTeed Web site

Equipment:
File storage media
Architectural scale
Modeling materials

Materials:
1. Architectural scale
2. Digital storage media

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Review syllabus and course requirements, Introduction to MicroStation environment, Log-in procedures for computer.</td>
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<tr>
<td>2</td>
<td>Basic MicroStation commands for creating, modifying and manipulating elements. View manipulation commands. File structure</td>
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<tr>
<td>3</td>
<td>Standard material symbology conventions. Microstation cell libraries and level</td>
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</table>
structure.

MicroStation annotation commands and options.

Drafting conventions used by construction industry.

Construction web resources, downloading drawing files, opening AutoCAD file in Microstation.

Wall sections; Wood framing, masonry, steel stud framing, single story, two story basement, crawl space. Slab on grade.

MicroStation annotation commands and settings.

Basic floor plans layout

Floor plans, Microstation reference files

Dimension standards for construction, Microstation dimension commands and settings

MicroStation 3D modeling, assigning materials, lighting and walk-through.

MicroStation commands to generate standard elevation views from 3D models.

Elevation materials, symbology and annotation. Industry standard reports/memos with Word and Excel. MicroStation plotting

Final Exam Period

II. Course Objectives*:

A. Interpret building code requirements. VI, VII

B. Represent graphically material representations for a building. VI, VIII

C. Know and understand standard practices as required by individual offices, regional practice and ANSI standards. VI, VIII

D. Understand plan, section, detail, and elevation view concepts as used to describe building construction. II, VI

E. Use a CAD program to generate required drawings & reports. IV, V, VI, VII, VIII, IX

F. Represent building materials and components graphically. VI, VIII

G.

H. Use other computer applications to produce reports. VII

I.

J.

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

III. Instructional Processes*:
Students will:

1. Use the "graphic primitives" of MicroStation 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 Strategy*

3. Use standard industry reference materials in electronic format. *Technological Literacy Outcome, Communication Outcome, Active Learning Strategy*

4. Use CAD applications to generate plans and details. *Technological Literacy Outcome, Active Learning Strategy*

5. Generate three-dimensional model using architectural application software. Use model to verify construction processes. *Technical Literacy Outcome, Active Learning Strategy*

6. Use three-dimensional model to generate 2D drawing for production drawings. *Technological Literacy Outcome, Active Learning Strategies*

7. Use dimensioning tools to completely and properly dimension final drawings as well as use annotation tools to completely annotate final drawing. *Technological Literacy Outcome, Communication Outcome, Mathematics Outcome*

8. Use word processor and spreadsheet to generate reports and memos and calculations. *Communication Outcome, Active Learning Strategy, Technological Literacy Outcome, Mathematics Outcome*

9. Use CAD application to generate plots according to industry standards. *Technological Literacy Outcome, Communication Outcome, Active Learning Strategy, Transitional Strategy*

*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. Know material sizes and thickness. B,C,F

2. Know material symbology. F

3. Know basic concepts of drawing organization. C,D

4. Draw typical wall sections. B,C,D,E,F

5. Draw large-scale details. B,C,D,E,F

6. Plot drawings at a given scale. C

7. Use reference files, patterns and cells to facilitate repetitive drawing. E

8. Use computer to annotate drawings following industry standard notes and abbreviations. C,E
9. Use computer to generate accurate drawings. C,E
10. Use CAD annotation tools to dimension drawings according to industry standards. C,E
11. Create digital graphic files. G
12. Be familiar with professional issues and practices. A,C,D,E,F
13. Use computer to write proposals and reports. H
14. Create 3D model geometry and evaluate. I
15. Create animation. J

*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 the students' 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:

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

D. Other Evaluation Methods:

Portfolio of semester work.

E. Grading Scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
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<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>
</tr>
<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. 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 Misconduct:

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.