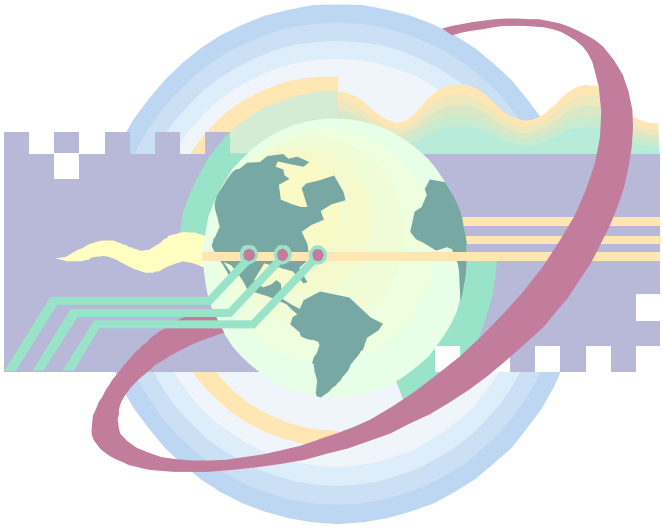
Course of study for Drafting 212
Advanced Technical Drafting II



Spring 2009

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Tidewater Community College
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1. GENERAL INFORMATION

COURSE TITLE: Advanced Technical Drafting II

COURSE CREDIT: 3 Semester Hours
(lecture 2 hours). Laboratory 3 hours)
Total: 5 hours per week

COURSE LENGTH 1 Semester (16 weeks)

TEXTBOOK: Geisecke, Frederick E., Mitchell, Alva, Dygdon, John T., Novak, James E., and Lockhart, Shawna, Technical Drawing, 13th Edition, Pearson Education Inc. Upper Saddle River, NJ. 2009.

REFERENCES: Drafting Technology by J. Earle

MATERIALS: Text, notebook, 3 – 3½" Diskettes, and 1 Flash Drive with minimum of 1G of memory.

2. INTRODUCTION AND OBJECTIVES

Drafting 212 is the second of two Advanced Technical Drafting Survey Courses in your Drafting and Design curriculum. Many of the needed drafting skills and techniques used in this course are a continuation of the first year Technical Drafting 151 and 152. Additional skills and techniques will also be refined in the course assignments. Students, who are weak in certain drafting skills, will be expected to spend the necessary time in the drafting lab in order to update their skills. Success as a draftsperson or designer is directly related to your ability to master necessary drafting skills and related technical information. Therefore, it is important as a drafting student that you review, practice and master the techniques and technical knowledge presented in this course.

Course Objectives: Upon successful completion of this course the student will be able to:

- Properly prepare and interpret sheet metal intersection and development drawings using appropriate symbols, terminology, and notations in accordance with industry practices and procedures.
- Properly prepare Civil Drawings in accordance with industry practices.
- Properly prepare structural drawings using appropriate symbols, terminology, and notations in accordance with industry practices.
- Use the Internet, symbol libraries, and related digital information as a resource and tool for researching and managing information used in engineering drawings.

Course Content:

- Developments and intersections
- Civil drawing
- Structural drawings
- Design project

3. Attendance Policy

Students will get the most out of a course, only if they attend the class. Signing up for a class is the same as signing a contract that states the student is going to be present for the class the appropriate date and time. If extenuating circumstances occur, the student is responsible for notifying the instructor of the circumstances promptly. The student is responsible for making up all class assignments and maintaining class notes. Failure to follow the above procedures will result in the student earning an unexcused absence. Each unexcused absence is a deduction of 3⅓ points off of the final grade.

4. Faculty Delete Form

Delete Forms are to be used to delete a student who has never attended a traditional class nor participated in an online class **prior to the last day to drop with a tuition refund**. This form must be received by Enrollment Services Office by 5:00 p.m. on January 23rd for a Spring 2009, 16 week class. A copy of this form is attached. It can be faxed to the Enrollment Services Office if you are off-campus, ATTN: Vanessa Wirtanen, FAX number: 822-7325.

5. Faculty Withdrawal Grade Report

A grade of "W" is awarded to students who withdraw or are withdrawn from a course after the add/drop period but prior to the completion of 60% of the session. After that time, the student will receive a grade of F except when making satisfactory progress and under mitigating circumstances, which must be approved by the course instructor and the appropriate academic dean. A copy of a Withdrawal Form and any supporting documentation must be placed in the student's academic file. **Last day of attendance for the student is required on the form.**

6. Incomplete Grade Form

An "I" (Incomplete) grade is used for unavoidable **verifiable** reasons. Since the "incomplete" extends the enrollment in the course, requirements for satisfactory completion will be established through student/faculty consultation. The "I" grade may be assigned only in the case of mitigating circumstances, beyond the student's control, such as illness, and only after at least 75% of the course has been satisfactorily completed. It is the student's responsibility to notify the instructor of the student's desire for a grade of "I". Incomplete grades assigned for the fall semester must be converted by the last day of instruction in the following spring semester. Incomplete grades assigned for the spring semester and summer term must be converted by the last day of instruction in the following fall semester unless the faculty member establishes an earlier deadline. In exceptional cases, extensions of time needed to complete course work for Incomplete grades may be granted beyond the subsequent semester, with the written approval of the chief academic officer on the campus (provost). If the work is not completed in time, another grade (B, C, D, F, R, U, or W) must be assigned based on the course work already completed. The "W" grade will be awarded only under mitigating circumstances, documented by the student and approved by the course instructor and appropriate academic officer on the campus. A copy of a Withdrawal Form and any supporting documentation must be placed in the student's academic file**.** Last day of attendance for the student is required on the form.

7. Official Grade Change

This form completes the Incomplete grade process for a student. It is also used to change the student's final grade in the event that an error has occurred. Examples include the miscalculation of the grade, mis-marking of the grade roster, and class work turned in after the grades have been submitted.

8. METHODS OF EVALUATION & GRADING

Notebook and Attendance	10%
Exercises	20%
Quizzes	20%
Design and Drawing Problems	50%
TOTAL:	**100%**

ASSIGNMENTS AND TESTS:

Students enrolled in this course are expected to complete their assignments on time.

Any assignments handed in late will be reduced one letter grade, each meeting after the due date. All tests and quizzes will be taken at the scheduled times given by the instructor. No exceptions will be made, except under mitigating circumstances.

Students have the responsibility to notify their instructor of the circumstances ahead of time.

GRADING:

A	**100 – 90**
B	**89 – 80**
C	**79 – 70**
D	**69 – 60**
F	**59 – 0**

9. COURSE PROCEDURES

All students are expected to be present and on time for all scheduled class and laboratory meetings. Instructors are not required to admit a student, who arrives late to the classroom. A student, who adds a class or registers after the first day of classes, is counted absent for all class meetings missed. Although a student may be allowed some absences in each semester, the student should be advised not to use these except for emergencies. Absences invariably have adverse effects on student achievement. The student is responsible for making up all work missed. Each student is responsible for keeping a record of the student's absences in each class.

When the student's absences in a course EQUAL the number of weekly class sessions of that course, the students standing in the class may be in danger.

When a student's absences in a course exceed twenty percent of the class sessions, the instructor may withdraw the student from the class with a grade "W" or "F."

A grade of W is awarded to students, who withdraw or are withdrawn from a course after the Add/Drop period but prior to the completion of sixty-percent of the session (insert specific date for your class). After that time, the student will receive a grade of F except under mitigating circumstances, which must be documented. A copy of the documentation must be placed in the student's academic file.

Signing up for a class is the same as signing a contract that states the student is going to be present for the class at the appropriate date and time. If extenuating circumstances occur the student is responsible for making up all class assignments. Failure to follow the above procedure will result in the student earning an unexcused absence. Each unexcused absence is a deduction of 3 points off of the final class grade.

Students are advised to discuss attendance irregularities with the instructor. *Do not simply stop your attendance. You may have mitigating circumstances* that would preclude you from receiving a withdrawal grade of F.

10. ACADEMIC MISCONDUCT

Academic misconduct includes, but is not limited to the following:

A. Cheating on an examination or quiz, which includes giving or receiving Information.

B. Copying.

C. Using unauthorized materials during tests.

D. Collaboration during examinations.

E. Buying, stealing, or selling examinations.

F. Substituting for another person, or arranging for such.

G. Plagiarism.

H. Submission of work other than your own assignments.

I. Collusion with another person or persons in submitting work for credit in class or lab, unless collaboration is approved in advance by the instructor.

(See TCC 2008 – 2009 Catalog, PP. 50 – 52)

11. EMERGENCY PROCEDURE

In the event of a bomb threat, tornado, or fire, students and staff may be asked to evacuate the building or move to a secure location within the building. Evacuation routes for movement to an external location or to a shelter within the building are posted at the front of the room. Students should review the maps and make sure that the exit route and assembly location for the building are clearly understood. If you have a disability that may require assistance during an evacuation, please let your faculty know at the end of the first class.

12. DISABILITIES STATEMENT

Students who have physical disabilities, learning disabilities, or chronic health problems and need assistance, academic accommodations, or program modifications, please notify your instructor, or contact Maria C. Payne, counselor, Disability Services.

13. COURSE OUTLINE

WEEK	MEETING	TOPIC
1	1	Introduction & Organization
1	1	Developments and Intersections: Parallel Line Development
1	2	Prisms and Cylinders
2	3	Pyramids and Cones
2	4	Radial Line Development
3	5	Transition Pieces
3	6	Civil Drawing: Surveying
4	7	Contours
4	8	Profiles
5	9	Bearings
5	10	Plots
6	11	Structural Drawings: Wood Construction
6	12	Structural Steel Connections

7	13	Calculations Erection Plans
7	14	
SPRING BREAK		
8	15	
8	16	Detailing Concrete Construction
9	17	
9	18	Design Project: Design Process
10	20	Concepts and Ideas
11	21	Compromise Solutions
11	22	Initial Sketches and Drawings
10	19	Presentation of design concept to peer group
12	23	Material selection and cost justification
12	24	Design for Manufacturing, assembly, disassembly, and service
13	25	Appearance,, service life, and recycling
13	26	Model and/or Prototypes
14	27	Final working Drawings
14	28	Peer group evaluation of both Model and /or prototype and working drawings (Assembly and detail)
15	29	Revisions to both working drawings and Model and/ or prototype
15	31	“ “

16	***EXAM***	Exam (design project to be completed by end of exam time) to include assembly and detailed working drawings, Model and or prototype, position paper documentation: • The design process followed • Manufacturing processes used • Cost of materials (cost of unit) • Life cycle • Ease of assembly • Ease of maintenance • Recycling opportunities