

CADD 125 - Drafting I - Course Syllabus

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Course

Description: This 3 credit hour course is a comprehensive introduction to technical drawing. It is intended to give the student a solid grasp of the basics of technical drawing and Engineering graphics. Course topics include sketching, geometric construction, orthographic projection, auxiliary views, isometric views, section views, dimensioning, tolerances, scaling, perspectives, and working drawings. At the end of this course the student will be able to create a basic working drawing. During the course, many manual-drafting topics will be used to complete a series of drawings.

Prerequisites: None. This is a beginning course in technical drawing and engineering graphics.

General Goal: To provide the student with sufficient knowledge and hands on experience to be able to be productive creating technical drawings.

Competencies:

At the end of this course, you should be able to:

Understand basic geometric construction techniques and the basic principles of descriptive geometry.

Create orthographic views of geometric models.

Create isometric views of geometric models.

Create first projection auxiliary views of simple objects.

Create section views of simple objects.

Create isometric drawings of geometric models.

Create perspective views of basic geometric models.

Apply basic drafting principles to create working technical drawings.

Develop good drawing habits and techniques to produce organized, neat, and accurate drawings.

Service

Learning

Outcomes:

Determine the appropriate drawing habits and techniques to produce organized, neat, and accurate drawings that can be built upon by others

Articulate good verbal skills to accurately communicate in the design world.

Demonstrate dimension styles and apply them to technical drawings using proper dimensioning techniques.

Formulate correct measurements from site to create final architectural drawings.

Class periods: Class time generally will consist of an average of 50-80 min of "hands-on-lecture" followed by individual lab work. Expect more lecture time early in the semester followed by more lab time near the end.

Text: Req'd Technical Drawing, by Giesecke et.al., thirteenth edition, Prentice-Hall publishing Co., 2002. ISBN - 0-7668-3853-6 (Delgado or Chimes [cheaper] bookstores)

- Assignments:**
- a) Lab exercises will be simple hands-on tutorial type problems related to the material in the lecture and completed during lecture-lab time.
 - b) Lab problems are less structured problems related to the present lecture and completed during class time.
 - c) Outside reading and preparatory assignments consist of reading and questions from text or reference materials related to the course topics, which should be completed before class. Homework will be due at the beginning of the next class period. Yes, you should allocate some time outside of class to read the text and to prepare for class. The material is will “sink in” easier when you take time to prepare.

Exams: Exams will consist of questions and hands-on drawings related to the material covered. There will be no makeup exams. If you miss the midterm for an acceptable reason, your final will count 30%.

Quizzes: Quizzes will consist of announced and unannounced types and will normally be short. Announced quizzes will be given to monitor progress and unannounced when it is apparent that students are not preparing for class. Announced quizzes normally will be given at the beginning and/or end of class. The contents of announced quizzes will often be discussed during the previous class. There will be no makeup quizzes, however, you will be allowed to drop a percentage, corresponding to the ratio of maximum allowed absences to the number of class days.

Grading:	Drawings:	50%	90% and up	- A
	Midterm Exam:	15%	80% up to 90%	- B
	Final Exam:	15%	70% up to 80%	- C
	Quizzes:	10%	60% up to 70%	- D
	Class Participation:	10%	Below 60%	- F

Evaluation: Drawings will be evaluated for: proper views, construction accuracy, dimension style and placement, proper scale, centering, accuracy, line weight, line style, and overall look.
Class participation will be evaluated on attendance (no credit if you are not in class!), attentiveness and the perception that you are actively involved in the learning process.

Class Participation In Service Learning

Project: The last three weeks of class you be will participate in a final project that will produce an architectural drawing which will be used by Delgado Community College City Park Campus and other classes in the CADD department to complete a three dimensions view of the buildings and their interiors for informational and emergency needs.

Service Learning Student will take the steps needed to get accurate measurement using the correct tools in the field or from a set of blueprints.

Assessments: Student will have to communicate with Delgado employees to asses needs to complete project
Student will provide a completed drawing for evaluation at the end of semester.

Service Learning

Evaluation: A final drawing will be presented to the instructor for evaluation and grading. Drawing will be graded for accuracy of information so over all final projects can be completed at a later date. Students will also be evaluated on participation in the many stages needed to see project from real world buildings to scaled drawing.

Frustration: Drawing and visualization of objects involves a lot of intense work that can be frustrating to the average person. **Do not beat yourself up.** It takes time and practice to become proficient with technical drawing.

Progress: You should complete most assignments and turn it in every class period. Occasionally you will need more than one class period to complete an assignment. If you fall behind on your work, (example: you miss a class) you will be expected to work on the current days lesson and complete “catch-up” work during non-class lab hours. In other words, if you miss a 3 hour class period, expect to work on a drawing approximately 3 hours outside of class on your own time.

Attendance: Attendance is required as per Delgado policy (10% = 3 missed class periods MAX for this course). It is the students’ responsibility to make up missed work. Anyone missing more than two un-excused days by the drop date may be dropped from the course by the last drop date of 11-10-04. If the third un-excused absence occurs after the drop date, the student may fail the course. Tardiness counts 1/3 class, leaving early counts 1/3 class. The attendance sheet must be signed each day. All excuses must be in writing and include a proposed time period during open lab time to make up your work.

**Class
Participation**

Students should pay attention to what is being said by the instructor and not on something else. Common problems: Students start playing around, not following instructions, which causes them to get out of sync with the class; Students arrive late and then can't catch up with the class. Excessive talking will not be allowed.

Instruments: The instructor will provide a complete list of drafting supplies required for this course.

Laboratory: Room 149 will be available as an open laboratory for drafting students during non-class times. A schedule will be available to let you know when the lab is available for homework and other drawing assignments. Students must follow normal laboratory procedures that will be handed out on a separate sheet of paper. Open lab hours will be posted on the lab door as soon as possible after the beginning of the semester. Students should use open lab hours to complete class work or to practice if they are slow and/or get behind with course assignments.

Seating: Usually, you may sit at any of the drafting tables unless instructed otherwise by your instructor. If you have a special need, please inform the instructor.

Phones: Pagers and phones must be set to a silent mode or turned off during class. **The disruptive practice of answering and conducting of phone conversations in the classroom is not permitted!**

Problems: Please inform your instructor if you experience difficulty with any equipment. No one should attempt to make any repairs, etc.

Safety: For personal safety, you should become familiar with exits to the laboratory so that you can exit the room and building safely should the power go out (can you see in the dark?) or should there be a fire. Report any safety issues to the instructor.

Americans with Disabilities Act:

“This syllabus is subject to change at the discretion of the instructor. Changes will be handed out in written form as an addendum to the syllabus. The course goals, objectives and student competencies do not change.”

It is the general policy of Delgado Community College to assure equal opportunity for all qualified persons. Reasonable accommodations for qualified persons with disabilities will be made provided the students have self identified with the Office of Disability Services and have provided required documentation. Individual instructors will modify the methods, requirements, and procedures of courses and examinations appropriately to accommodate the special needs of students with disabilities, provided the academic integrity of the course or examination is not violated, and the health and welfare of all students are safeguarded. No accommodations will be made without letters of accommodations from the Office of Disability Services. The Office of Disability Services is located in the Advisory Retention and Counseling Center (ARCC).

DRAF 125 – Semester Calendar

<u>Week</u>	<u>Drawing</u>	<u>General Topic(s)</u>
1.	1	Introduction, tool requirements, basic sketching of geometric shapes.
	2	Visualization - sketching – normal planes, inclined planes, oblique planes.
2.	3	Visualization - sketching – isometrics.
	4	Visualization - sketching – orthographic projection
3.	5	Use of instruments, geometric construction
	6	Use of instruments, geometric construction
4.	7	Use of instruments, geometric construction
	8	Use of instruments, geometric construction
5.	9	Use of instruments, orthographic projection
	10	Use of instruments, orthographic projection
6.	11	Use of instruments, orthographic projection
	12	Use of instruments, orthographic projection
7.	13	Use of instruments, orthographic projection
	14	Auxiliary views
8.	15	Auxiliary views, review
	---	Mid-term exam (3 hours)
9.	----	No Class - Holiday
10.	16	Section views
	17	Section views
11.	18	Service learning; over view
	19	Service Learning; connect with Delgado
12.	20	Service Learning; gather measurements or files
	21	Service Learning
13.	22	Service Learning
	23	Service Learning
14.	24	Service Learning
	25	Working drawings
15.	---	Review and clean up drawings
16.	26	working drawings
	---	Review & Portfolio presentations
17.	----	Final Exam