

TECH 310 - The Design Process
Course Syllabus
Department of Technology

Contact Information for Instructor

Instructor:	Dr. Seaman
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Course web site:	https://moodle.calstatela.edu
Office Hours:	Before class or by appointment
Course Times:	Tuesday/Thursday 7:20pm – 9:50pm
Location:	B110, Engineering and Technology building

Course Description

Introduction to the process of technical design. Analysis and application of the methods, models, organizations, standards and practices used in the design of projects or products. Overview of the design process addressing traditional and current technological design practices used in industry. The importance of communication of technical design concepts needs to be stressed along with providing in class experiences for students working on teams to improve the quality of a design and articulating design goals. Design organizations and design development models and industry standards for the technologist will be addressed. (Required core course and prerequisite for the concentration in Computer Integrated Design).

Americans with Disabilities Act (ADA)

Reasonable accommodation will be provided to any student who is registered with the Office of Student Disabilities and requests needed accommodation.

Student Learning Outcomes

Upon completion of this course, students will be able to:

1. identify the various stages of the engineering design process
2. identify and use traditional design tools for formulating an initial design concept for presentation purposes
3. identify and use appropriate electronic tools in refining ideas in the design process
4. identify and use industry standards
5. function as a member of a design team and use electronic collaboration tools

Course Requirements

Required Text

Dym, Clive and Patrick Little, *Engineering Design: A Project Based Introduction, 3rd Edition*, Wiley Higher Education, August 2008. ISBN# 978-0-470-22596-7. Note: the 2nd Edition can be purchased!

Important Dates

November 10	ATMAE Conference – No Class
November 11	Veterans' Day; campus closed
November 24-26	Thanksgiving; campus closed
December 5-10	Final examinations
December 11-January 8	Student recess

Topical Outline

Please refer to the class web site to for access to the Moodle Learning Management System (LMS). The topical outline will be available on the TECH 310 Moodle site.

Grading

The final grade for the course will reflect the degree of success with assignments, quizzes on the reading material, and assigned design projects and will be calculated on the following basis.

- Assignments - 35 %
- Quizzes - 25%
- Package Design Project - 30%
- Final Presentation - 10%

Final grades will be issued using the following scale:

A = 93-100	C = 73-76
A- = 90-92	C- = 70-72
B+ = 87-89	D+ = 67-69
B = 83-86	D = 63-66
B- = 80-82	D- = 60-62
C+ = 77-79	F = 0-59

Individual/Group Work

This course includes various combinations of individual and group work. Students must demonstrate individual aptitude, and achieve a passing grade for individual work, in order to pass the course. It is important where collaborative

work is undertaken that students be able to clearly demonstrate that individual contribution has been made.

Participation and Professionalism

Active participation and professional conduct are particularly important in this course and will be evaluated. At the same time, when the student's work is reviewed at the end of the course, an evaluation will be made based on one or more of the following: in class discussion; consultation with instructor; and work ethic. However, none of these evaluations will be used to raise an overall failing grade, to a passing one, based on the quality of the work.

Student Responsibility (*lecture/lab courses*)

You as a student are responsible for knowing the content of this course outline, the schedule of classes, assignments, and quizzes; and material covered during any absence from scheduled classes.

Academic Honesty

(Senate: 7/25/00, 7/27/04, 10/23/07; President: 2/5/01, 11/24/04, 11/29/07; Editorial Amendment: 8/01)

PREAMBLE

Policy update effective: 11/29/07

The University in its quest for truth and knowledge embraces honesty and integrity. These fundamental values must not be compromised. The trust and respect among professors, students and the society need to be vigilantly protected. Cheating and plagiarism can be neither justified nor condoned as this would destroy the ideals and purposes of higher education. Students enter the University to gain the knowledge and tools necessary for participation in society. Academic integrity is one foundation for a society based on trust and honesty. Therefore, the University takes seriously its responsibility for academic honesty.

Academic Honesty Policy - <http://calstatelausu.org/csi/handbook/honesty>