

ENGR 4201: Professional Engineering Practice Section 010 Wednesday 4:00—5:50 pm, Spring 2019

1: Instructors

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2: Required materials

Readings will be posted on-line. You do not need to purchase a textbook.

3: Prerequisites

Senior standing in engineering.

4: Course Description

The role of the engineer as a design professional. Professional responsibility and liability, contract law, risk management, contract formation, business practices, ethics and professional registration. (2 credit hours with 2 Lecture hours per week.)

5: Student Learning Outcomes

When you complete this class you should be able to:

1. Describe attributes of a profession and a design professional and the legal environment in which design professionals work.
2. Define torts and apply legal principles to simple cases to find legal fault
3. Compare and contrast negligence, simple liability, and professional liability
4. Negotiate contract terms, performance disputes, and liability disputes in the context of professional design practice
5. Describe professional licensure process and ethical responsibilities of registered professionals
6. Given fiscal data compute simple business performance data such as profit/loss, billing rates, and break even multiplier.

6: Course outcome mapping

The mapping of the course outcomes to the ABET Criterion 3 student outcomes is shown in Table 1.

Table 1: Course Outcome Mapping

ABET Criterion 3	Student Learning Outcome Number					
	1	2	3	4	5	6
1. Solve Problems						
2. Design	X			X	X	X
3. Communication				X		
4. Ethics & Professionalism	X	X	X		X	
5. Teamwork						
6. Experimentation						
7. Acquire New Knowledge	X	X	X	X		

7: Course structure and communication

This course is a hybrid between a seminar and lecture course. The value of the course to you will be highly dependent upon your preparation for class. We will be using both Blackboard, email, and Piazza to communicate during this course. Lesson materials will be delivered via Blackboard.

8: Professionalism

Professional engineering standards apply in this class. You are expected to demonstrate a behavior consistent with the conduct of an individual practicing in the engineering profession. You are expected to: (1) come prepared for class; (2) respect faculty and peers; (3) demonstrate responsibility and accountability for your own actions; (4) demonstrate sensitivity and appreciation for diverse cultures, backgrounds, and life experiences; (5) offer and accept constructive criticism in a productive manner; (6) demonstrate an attitude that fosters professional behavior among peers and faculty; (7) be punctual to class meetings; (8) maintain a good work ethic and integrity; and (9) recognize the classroom as a professional workplace.

9: Graded Material

9.1: Class Attendance, Participation, Timeliness and Teamwork

The number one complaint of engineering clients is the timeliness of deliverables (reports, drawings, specifications, etc.). As a professional engineer you will be expected to arrive at scheduled meetings on time and prepared. Late proposals are not generally accepted. Late specifications or drawings may cost the engineer a monetary penalty. Professional engineering standards apply in this course.

You are expected to meet every class meeting on time and prepared. Attendance will be taken. Should you find it necessary to miss a class for any reason, you are expected to notify your instructor as early as the absence is known—preferably before the absence. It's important that you communicate clearly your instructors.

Your online assignments will be due at the time specified on Blackboard. Any assignments submitted in hard copy are due at the beginning of class on the due date. Your instructor may assess penalties for late work.

9.2: Reading Assignments and Homework

You will be given reading and homework assignments nearly every lesson. Reading assignments will come from the assigned textbooks or other materials provided or available via the web. The homework assignments will consist of questions to be answered during your reading and preparation for class. Reading and homework assignments will be distributed via the Blackboard.

9.3: Quizzes

Instructors may give in-class quizzes. The quizzes will be unannounced and unscheduled. The quizzes are intended to determine whether or not you have completed the pre-class work and are prepared for class.

9.4: Course Exercises

There will be two in-class exercises in this course. Participation in both exercises is expected from all students. Zero points will be awarded for missed exercises. These exercises cannot be made up.

9.5: Exams

This course will have two exams, a mid-term and a final. The midterm will be a take-home exam and the final will be given in class.

9.6: Grades: Weighting and Letter Grades

The weighting system shown in Table 2 will be used in determining final grade for the course

Table 2: Grade Weighting

<u>Item</u>	<u>Percent</u>
Homework	12%
Attendance & participation	4%
Quizzes	4%
In-class exercises	20%
Midterm exam	30%
Final Exam	30%
Total	100%

The instructor will determine letter grades for the course using his professional judgment, and the following standards as described in the University Catalog:

A = excellent work B = good work C = average work D = poor work F = failing work

10: Classroom and University Policies and Student Support

10.1: General Policies

All students are required to follow the policies and procedures presented in the [Angelo State University Student Handbook](#)¹ and [Angelo State University Catalog](#)².

10.2: Student Disability Services

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by contacting Ms. Dallas Swafford, Director of Student Disability Services, at 325-942-2047 or Dallas.Swafford@angelo.edu, or visit the [Student Disabilities Services website](#)³.

10.3: Title IX Statement

Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU's Title IX Coordinator: Ms. Michelle Boone, Director of Title IX Compliance, at 325-486-6357, or Michelle.Boone@Angelo.Edu.

10.4: Observance of Religious Holy Day

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁴ for more information.

10.5: Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course

work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

10.6: Student Conduct Policies

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the Statement of [Academic Integrity](#)⁶

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the [ASU Writing Center](#)⁷.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

11: Instructor Prerogative

This class does not operate under democratic principles. Your instructor may change policies, procedures, of this course when he deems it necessary. You will be notified of any such changes.

12: Course Outline

The course outline is presented in Table 3. More detail and updates will be provided via Bb.

Table 3: Course Lesson Outline

Week	Date	Topic	Instructor	Assignment Due
Block I: The Profession, Project Delivery and Selection				
1	Aug 28	Course introduction: Professional Expectations	Kitch	Homework
2	Sep 4	Professional Engagement: Project delivery	Kitch	Homework
3	Sep 11	Professional Engagement: the selection process	Kitch	Homework
4	Sep 18	Professional licensing and ethics	Kitch	Homework
Block II: Negligence, Standard of Care, and Risk Management				
5	Sep 25	Risk analysis and risk management	Kitch	Homework
6	Oct 2	Law, legal analysis and liability	Rodriguez	Homework
7	Oct 9	Negligence, strict liability, and Professional liability	Rodriguez	Homework
8	Oct 16	Class exercise #1: Professional negligence	Rodriguez	Homework
Block III: The Contract				
9	Oct 23	Contract formation: elements of law	Stipanovic	Homework
10	Oct 30	Contract documents and clauses	Stipanovic	Homework
11	Nov 6	Contract formation: the engineer's perspective	Kitch	Homework
12	Nov 13	Class exercise #2: Contract negotiation and documentation	Stipanovic	Homework
Block IV: Licensure & business operations				
13	Nov 20	Budget planning & labor utilization	Kitch	Homework
14	Nov 27	Thanksgiving Holiday—No Class		
15	Dec 4	Business planning and marketing	Kitch	Homework
	Dec 9	Final exam 6:00 – 8:00 pm		

13: End Notes

¹ <http://www.angelo.edu/student-handbook/>

² <http://www.angelo.edu/catalogs/>

³ <http://www.angelo.edu/services/disability-services/>

⁴ <http://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

⁵ <http://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁶ <http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁷ http://www.angelo.edu/dept/writing_center/academic_honesty.php