

UNIV 1301: Foundations of Engineering

CRN: 28216, MW 10:30-11:50am

Course Syllabus

Spring 2018

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Office: Library 215

Required Text: Studying Engineering: A Road Map to a Rewarding Career, 4th Edition, by Raymond B. Landis. Los Angeles: Discovery Press (2013).

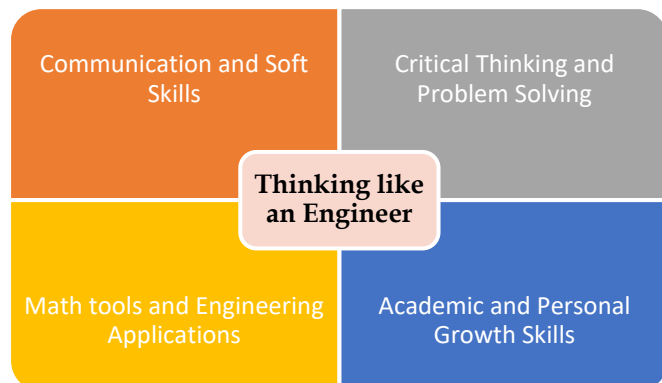
Other materials needed:

- ✓ Scientific calculator.
- ✓ One 3 ring binder or notebook for readings/handouts, class notes, assignments and/or discussions.

Course Description

“Foundations of Engineering” is the gateway to your engineering education at the University of Texas at El Paso and to the exciting profession of engineering. The foundations taught throughout the course are tools for developing skills that will enable you to become a successful student and engineering professional.

At the end of the semester you will begin to understand your role, opportunities and responsibilities that impact your success.



COURSE GOALS

- Students will develop and apply elements of leadership through effective individual participation and meaningful team collaboration to empower them to be agents of change.
- Students will examine the roles and responsibilities crucial for their success in college and beyond.
- Students will identify, assess, and build on their strengths and experiences to develop academic and transitional strategies necessary for success in their academic, career, and life goals.
- Students will engage in research and critical thinking activities that demonstrate their ability to effectively integrate their learning within, across, and beyond academic settings.
- Students will engage in campus and community activities to increase their sense of academic and social belonging.

Resources and Support

Student will receive considerable support during the course. UNIV 1301 will be taught by an instructional team consisting of an instructor, a Lower Division-Engineering Program Advisor, a student Peer Leader, and a university Librarian.

UTEP Resources such as the Library, Writing Center, Math Resource Center, ACES, Miner Learning Center, Computer labs, Career Services, and Counseling Center will be recommended and incorporated for class activities and assignments.

Grading

100%-90%	A	2 Exams	15%
89% -80%	B	Final Exam	15%
79% -70%	C	Projects, Presentations, Research	25%
69% -60%	D	Homework/ Assignments/quizzes	20%
59% - 0%	F	Attendance and class participation	15%
		Mentoring and Final survey	10%

**Note: UNIV 1301 is part of the University Core Curriculum and requires a "C" grade or better in order to fulfill the core requirement and successfully complete the course.*

Project: Student will have to work on a team-based engineering design project. More information and deadlines about the project will be given at a later date. There will be no make ups for this project.

Presentation: Student will have at least two presentations during the semester. These presentations will be team based, and there will be no make ups. The themes and guidelines of the presentations will be announced at a later date.

Research: There will be at least one research activity included in our class, which will require the use of the UTEP library, and assistance of our librarian. More information and deadlines will be given at a later date.

Homework & Assignments:

Homework must be turned in at the beginning of the class on the due date. It should be stapled and flat (do not fold). *Late homework will NOT be accepted*, unless there is a case of illness or an emergency, in which case you are responsible for notifying your instructor or peer leader as soon as possible (*before class*) of the situation necessitating late submission of homework; validating proof of the illness or emergency will be required.

Some assignments may be submitted using our Blackboard shell. Specific instructions and due dates for assignments will be given either in class or through Blackboard. *No late assignments will be accepted.*

Exams:

There will be two in class exams and a comprehensive final exam, focused on mathematical skills, lecture material, and assignments. No retakes of the exams will be given without prior approval of the instructor. If you encounter an emergency and are unable to attend the exam you must notify us prior to the exam to be able to make it up. Additionally, you must provide proof for the reason of being absent.

Exams can only be made up from the day the exam is given in class to the next class day. Example: if the exam is on a Tuesday, you can take the exam on that Tuesday, Wednesday (the next day) and Thursday (prior to the class time).

Quizzes:

There will be several quizzes throughout the semester to provide you regular feedback on your performance in class, most of which will not be previously announced. No make-up quiz will be given if you are late or absent for any reason.

Attendance:

Students are expected to attend every class, **be on time**, and be fully prepared each day for class material and activities.

Unsatisfactory attendance consists of absences, tardiness, leaving the classroom early, or coming to class unprepared to participate (without texts or assignments). When a student has compiled a total of FOUR instances of unsatisfactory attendance, he/she may be dropped at the discretion of the instructor; before the drop date the student will receive a W, after the drop date the grade will be an F. Unavoidable absence that are properly documented may be excused at the discretion of the instructor, not the Peer Leader. Documented absences for school related activities, such as traveling with a team, will be excused.

In the event of an absence or delay, you must contact your instructor prior to class. It will be your responsibility to check with classmates to find out what you missed in class.

Absences for University-recognized activities (such as athletics, band/orchestra, conferences or field trips), religious holy days, or military leave, will be excused only if I am notified prior to the event.

Activities & Class participation:

There will be several group and individual activities throughout the semester. There will be no make up for any of the class activities. As part of your homework, you will be required to attend at least 2 UTEP events for which you will show proof of attendance (TBA).

Class participation will be tested in various ways during the course, which include Blackboard discussion boards, participation in group and in-class discussions, reflection paper, class experts etc. Thus, student must bring all reading material assigned to class. Failure to do so may result in lost participation points.

Class experts: During several class meetings, approximately 4 students will be chosen at random to be “class experts.” These students will be called upon to lead in-class group discussions. If you are not present and prepared on the day you are “a class expert” you will lose participation points.

Blackboard: This will be a technologically enhanced course using Blackboard. If you need assistance with Blackboard, please contact the Help Desk. There will be approximately 10~13 Blackboard discussions throughout the semester. These questions will require an initial posting with a minimum of 100 words and a minimum of 50-word response to one of your fellow student’s postings. Responses must be posted by 11:00 pm on the due date for full credit.

Survey:

Upon the end of the semester, you will receive an invitation through your UTEP email to complete a ESP Student Feedback Survey which will count towards 10% of your final grade. This is a required assignment and I will get notified of the students that completed the survey or not. This is anonymous and your answers will not be disclosed.

Mentoring:

During the semester, you will be meeting at least once with the instructional team (instructor and peer leader). An additional meeting may be required to discuss academic progress and to explore options for improvement. This meeting(s) will count towards 10% of your final grade.

Syllabus Change Policy

Except for changes that substantially affect the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice. It **is your responsibility** to be aware of all the policies and information in this syllabus. If there is anything you do not understand, ask me.

Technology Devices

Set your phone to mute or silent mode before coming to class. Do not answer incoming calls, make outgoing calls, or text message. Use of cellphones or smart watches will be prohibited during class. If a student is found using his/her cellphone or smart watch, the student will be asked to leave the class, and will not be allowed to come back until next class. Moreover, this will be considered an absence.

Use of laptops and tablets will only be permitted if the professor requires it for class. Do not use web browser features on phones, laptops, or tablets while in class unless it relates to class material.

Technology Issues

Let's face it: technology breaks. Servers go down, transfers time out, files become corrupt... the list goes on and on. These are not considered emergencies. They are part of the normal production process. An issue you may have with technology is no excuse for late work. You need to protect yourself by managing your time and backing up your work.

Academic Integrity

Academic dishonesty is a very serious matter and will NOT be tolerated. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. It is the official policy of the University that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline.

Student Conduct

Students are expected to have courteous behavior during class interactions, either in-person or during on-line discussions. I expect everyone to respect others' opinions, listen and respond politely to others' ideas, remain sensitive to the feelings of other class members, and take responsibility for moving the class discussion forward by remaining on topic.

Please be aware that harassment is unacceptable in any professional environment. No offensive comments of sexual nature, religion, race, or gender will be tolerated. The student that uses harassment will be sent to the Dean of students for disciplinary action.

Each student is responsible for notice and compliance with the provisions of the [Regents' Rules and Regulations](http://catalog.utep.edu/undergrad/academic-regulations/student-life-policies-and-procedures/#IllegalSubstances) (50000: Student Issues) or in the UTEP catalog Policy (<http://catalog.utep.edu/undergrad/academic-regulations/student-life-policies-and-procedures/#IllegalSubstances>).

Center for Accommodations and Support Services (CASS)

Please be aware that the Center for Accommodations and Support Services (Union East, room 106, 747-5148) provides a program of support and advocacy services to students with disabilities. If you have or suspect a disability and need an accommodation you should contact Center for Accommodations and Support Services (CASS) at 747-5148, via email at cass@utep.edu, or go to Room 106 Union East Building.

Copyright Statement

Some of the materials in this course are copyrighted. Violation of US copyright law can result in civil damages up to \$100,000 for each work copied. Copying of textbooks is not “fair use” under the Copyright Act. The “fair use doctrine” only permits non-commercial copying of part (in general, not more than 10%) of a copyrighted work. Do not bring a copied textbook to this class. Your cooperation is expected.

Important Spring 2018 Dates

Jan 16 th	Fall classes begin ✓ Change your major if enrolled in Calculus I or higher
Jan 16-19	Late Registration
Jan 31 st	Census Day (<i>Last day to drop without record</i>)
Feb 2 nd	Engineering and Science EXPO
Feb 19-22	National Engineers Week
March 12-16	Spring Break - <i>no classes</i>
Mar 23 rd	TCM Celebration - campus-wide Celebration
Mar 29 th	Course Drop Deadline
Mar 30 th	Cesar Chavez Holiday - <i>no classes</i>
May 3 rd	Last day of classes / Last day to complete Withdrawal
May 4 th	Dead Day
May 7-11	Final Exams
May 21 st	Final Grades Available

Date		Class Topic <i>(subject to change)</i>
Week 1	1/15	<i>Martin Luther King Jr.'s Day</i>
	1/17	Introduction. "Meet and Greet" in-class activity. "Intro to Engineering"
Week 2	1/22	Syllabus & Blackboard overview. Practice assignment: Why do you want to become an engineer?
	1/24	Career Center Services
<i>Read Keys to Success in Engineering Study</i>		
Week 3	1/29	Keys to Success in Engineering Study/GRIT, Group Discussions and GRIT activity.
	1/31	Unit conversion & Significant Figures
Week 4	2/5	Making the most of how you are taught
	2/7	Basic Trigonometry
Week 5	2/12	Library Orientation Visit (Library room 204B)
	2/14	The Engineering Profession – ENGR Design Process; ENGR Design Project Guideline; Gantt Chart
Week 6	2/19	3D Tinkercad & 3DPrinterOS design training (at UGLC 202 – Atlas Lab)
	2/21	Law of Sines and Law of Cosines
Week 7	2/26	Making the learning process work for you; Teamwork –Ch. 5
	2/28	Student Tutoring/Support Centers presentations
Week 8	3/5	Office of Student Conduct and Conflict Resolution (OSCCR)
	3/7	EXAM I
Week 9	3/12	<i>Spring Break – No classes</i>
	3/14	
Week 10	3/19	Compliance
	3/21	One-on-one meeting with Instructor
Week 11	3/26	Library Visit (Library room 204A) – Research Report
	3/28	CHOICES – Activity & Resume Activity
Week 12	4/2	Personal growth and student development; Leadership Development; ESLC Presentation & Student Organizations Services Presentation
	4/4	Linear Equations
Week 13	4/9	Quadratic Equations
	4/11	Study Abroad; Broadening your education
Week 14	4/16	Vectors and applications
	4/18	EXAM II
Week 15	4/23	Project presentations
	4/25	Project presentations
FINAL EXAM	Friday, May 11th - 10:00 am – 12:45 pm	