

The University of Texas at El Paso
Foundations of Engineering
UNIV 1301
Tuesday & Thursday 09:00 AM -10:20 AM
Fall 2015

Instructor:	Ahsan Choudhuri, Ph.D.
Office:	A 125, Engineering Building
Phone:	747-6906
Text:	Studying Engineering: A Road Map to a Rewarding Career, 4th Edition, by Raymond B. Landis (2013). Los Angeles: Discovery Press.

Teaching Assistant:	Samia Afrin Arifur R. Chowdhury
Office	A 126, Engineering Building
Office Hour	Thursday 4:00 PM-5:00 PM
Phone	747-5450
Peer Leader:	Leonardo Orea
Office:	UGLC 212
Advisor:	Linda Vera
Office:	ENGR 226, Engineering Building
Phone:	747-6779
Librarian:	Debjani Mukhopadhyay
Office:	LIB 215, UTEP Library
Phone:	747-6715

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. You will have the opportunity to make meaningful connections to the magic of engineering and to contribute to the UTEP legacy of leadership in developing outstanding students and career professionals. The Foundations you build will enable you to be a successful student and a successful engineer! The foundations are tools for developing:

- academic skills and personal growth skills
- engineering skills in critical thinking and problem solving
- mathematical tools and applications for engineering

- connections with the engineering profession and opportunities to appreciate the world of engineering

At the end of the semester you will:

- Begin to understand your role, opportunities and responsibilities that impact your success within the context of the university.
- Have learned about and practiced essential academic skills in order to strengthen performance in the university setting.
- Begin to build a strong network of faculty, staff, and peers in order to create a supportive and positive learning experience/environment.
- Begin to assess and better understand your own interests, abilities and values in order to more efficiently pursue your academic, career, and life goals.
- Have become involved in UTEP activities and campus resources.

The Center for Accommodations and Support Services (CASS): Students requiring unique accommodations must contact the CASS office and provide their instructor with the proper documentation at the beginning of the semester. CASS office may be contacted at 747-5148, cass@utep.edu or go to Room 106 Union East Building.

Grading Percentage:

- **Project 1** **30%**
- **Project 2** **30%**
- **Project 3** **40%**

Project Timeline

- **Project 1** **August 24 – September 24**
- **Project 2** **September 29 – October 29**
- **Project 3** **November 03 – December 03**

Project 1&2:

Focus:

- Development of the College Learning Technic
- Development of the Design Skill
- Introduction of MS Office: Word, Excel, PowerPoint
- Unit Conversion
- Basic Algebra
- Basic Trigonometry
- Basic Force and Moment Calculation
- Tolerance

Project Grading Rubric:

- Initial Design Concept Report **25%**

- Final Design Report 35%
- Oral Presentation 15%
- Quiz 15%
- In Class activities 10%

Project 3:

Focus:

- Development of the Design Skill
- Development of the Manufacture Skill
- Application of the Engineering Knowledge in Real Life Problem
- Basic Force and Moment Calculation
- Tolerance

Project Grading Rubric:

- Initial Design Concept Report 20%
- Final Design Report 30%
- Marketing 10%
- Poster Presentation 20%
- Quiz 10%
- In Class Activities 10%

Grading Scale:

100%-90%.....A
 89% -80%.....B
 79% -70%.....C
 69% -60%.....D
 59% - 0%.....F

Mentoring: You will be meeting, on a one-to-one basis, with your peer leader and your instructor at least once during the semester.

Academic Conduct:

Academic dishonesty will not be tolerated. You must submit your work only. If you are found to be cheating or plagiarizing, you will be subject to disciplinary action, per UTEP catalog policy (<http://www.utep.edu/dos/acadint.htm>).

Cell Phone: All cell phones must be turned off before the beginning of the class. If a student forgets to turn it off, he/she will have to leave the classroom and may only return with the instructor's permission.

Important Fall 2015 Dates:

Labor Day – no classes	September 07
Homecoming Week	September 27-October 03
Drop deadline	October 30
Thanksgiving – no classes	November 26-27
Dead Day	December 04

Important College of Engineering Dates:

Gold Rush/College of Engineering Open House	September 02
Engineering Mixer	September 16
Career Expo	September 17-18
Order of the Engineer / Hooding Ceremony	December 12