

CE 1301 Civil Engineering Fundamentals 15250

Fall 2021 Syllabus

*Note: the instructor reserves the right to modify the following information as deemed necessary.

Lecture Session: TR 7:30am – 8:20am

Lecture Location: UGLC 346

Instructor: Joanne Moyer, PhD

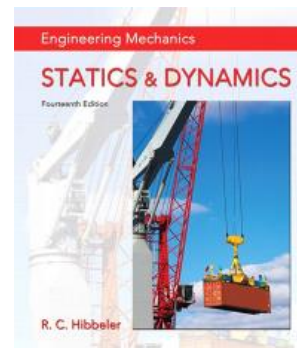
Email: jmmoyer@utep.edu

Online Office Hours: Monday and Thursday 1:00pm – 2:00pm
Or by appointment

Office Location: A-212

REQUIRED MATERIALS:

Textbook: Statics & Dynamics .
14th Edition by: R.C. Hibbeler, 2016
ISBN-10: 0-13-391542-5
ISBN-13: 978-0-13-391542-6



Assignments: Pearson: Mastering Engineering
Course Name: CE 1301 CE Fundamentals Fall 2021
Course ID: moyer91138

<https://www.pearsonmylabandmastering.com/northamerica/masteringengineering/>

Calculator: Only NCEES approved calculators will be permitted, as these are what is allowed for the Fundamentals of Engineering exam. Visit the NCEES website (<http://ncees.org/exams/calculator/>) for more information. No phones. The following are a few of the suggested calculators:

- Hewlett Packard – HP 33S
- Casio – FX 115MS or FX 115MSPlus
- Texas Instruments – TI 30X IIS
- Texas Instruments – TI 36X SOLAR

It is your responsibility to get acquainted with the features of the calculator you decide to use. I recommend that you use this calculator for all your work (including other courses) since this will help you learn how to use all the features of your calculator.

CELL PHONES:

Please be courteous, and turn off your cell phones during the class lectures.

COURSE OBJECTIVES:

This course involves a hands-on survey of the five disciplines of civil engineering (geotechnical, structural, transportation, environmental, and construction) and an introduction to engineering mechanics with a focus on the fundamentals of statics. The objectives of this course are to develop:

1. an understanding of the breadth of the civil engineering profession and the significant role that civil engineers provide in civilization
2. an understanding of several typical career pathways for civil engineers, especially including professional engineering licensure
3. an intuitive understanding of loads and moments
4. a mathematical vector analysis of forces and moments in static structures
5. a fundamental analysis of reaction forces and moments on static rigid bodies
6. an introduction to dynamics with conservation of energy and momentum

GRADING POLICY:

Your grade for this course will be determined on the basis of **1270 points** as follows:

Grading Scheme:	Exams:	300 points (100 points each exam)
	Final Exam:	300 points
	Quizzes:	160 points (40 points each quiz)
	Assignments:	160 points
	Lab Assignments/Discussion Board	100 points
Lab Participation (attendance and involvement in discussions)		100 points
	Lab Presentation	150 points
		<hr/>
		Total 1270 points

Grading Structure:	A \geq 90
	90 > B \geq 80
	80 > C \geq 70
	70 > D \geq 60
	60 > F

WHAT SHOULD YOU EXPECT FROM ME AS THE INSTRUCTOR?

1. I will provide you with clear instructions on class expectations.
2. I will check my e-mail at least three times per week and will answer back to you as soon as possible.
3. I will leave myself open to suggestions about improvement of the class and class related activities.
4. I will do all I can to enhance your learning and success in this class.
5. If any changes in the course are to be implemented, I will ensure that the class is notified in a timely manner.

ATTENDANCE & CLASS PARTICIPATION:

- ***Students are expected to attend all lectures and read all course material assigned.***
- Those who fail to attend classes regularly are inviting scholastic difficulty and, with the approval of the Dean of the College of Engineering, may be dropped from the course with a grade of F for repeated (4 or more) unexcused absences.
- Those who fail to complete the course material are inviting scholastic difficulty.

ASSIGNMENTS:

- ***Assignment problems will be assigned via Pearson: Mastering Engineering.***
- ***Written assignments may also be assigned during the semester.***
- ***Assignments will be available after a subject has been covered. Assignments will be due within a week after availability.***
- Past experience clearly shows that a student's grade is strongly dependent upon the effort that is put into working and understanding the homework.
- **Late assignments will not be accepted. No exceptions!!**

QUIZZES:

Quizzes will be administered during the scheduled lecture time on-campus.

- **See tentative schedule for Quiz dates.**
- Quizzes are closed book – closed notes. Be sure to prepare and be ready to take quizzes.
- **The lowest quiz grade will be dropped from your grades.**
- **No makeup quizzes will be administered. No exceptions!!**

Five quizzes will be given. You must take the quizzes during the scheduled course time. These dates are announced on the first day of class although the dates may be changed according to the progress of the class.

EXAMS:

Exams will be administered during the scheduled lecture time on-campus.

- Exams are closed book – closed notes. No cell phones allowed.
- **No makeup exams will be administered. No exceptions!!**
- **See tentative schedule for Exam dates.**

Four mid-term exams will be given. You must take the exams during the scheduled exam times. These dates are announced on the first day of class although the dates may be changed according to the progress of the class.

In accordance with University regulations, students who miss examinations will receive grades of zero.

Make sure that you do not have a cell phone or any other electronic item in your possession during the exams.

The mere possession of a disallowed calculator, any cell phone or any other electronic item on or near you during exams is the ground for receiving a grade of zero.

FINAL EXAM:

The final exam will be administered during the scheduled lecture time on-campus

- Final Exam is closed book – closed notes. No cell phones allowed.
- **Students must take the final exam during the scheduled final exam time. No exceptions!!**
- Please see tentative schedule for Final Exam day and time.
- Final Exam is comprehensive.

COURSE PORTFOLIO:

Students are encouraged to prepare a course portfolio documenting all materials relevant to the course. The portfolio shall contain Power Point lecture notes, class notes, handouts, exams, homework assignments, study notes, and any relevant materials accumulated during the semester. I believe that you will benefit from the portfolio years later when you need to review the learned subjects for advanced courses or professional engineer licensure exam

TUTORING

ACES provides tutoring for Statics. Please take advantage of this great resource located in Classroom Building Room C-001. See the link below for hours of operation.

<https://www.utep.edu/engineering/student-resources/student-resources-aces.html>

PERSONS WITH DISABILITY:

UTEP seeks to provide reasonable accommodations for all qualified individuals with disabilities, including learning disabilities. This university will adhere to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required affording equal educational opportunity. It is the student's responsibility to register with Center for Accommodation and Support Services (CASS) in the East Union Bldg., Room 106 within the first two weeks of classes, and inform the faculty member to arrange for appropriate accommodations.

Center for Accommodation and Support Services (CASS) can also be reached in the following ways:

Web: <http://sa.utep.edu/cass/>

Monday thru Friday 8:00a.m.-5:00p.m.

Union Building East Room 106

Phone:(915) 747-5148

cass@utep.edu

POLICY ON CHEATING:

Students are expected to be above reproach in all scholastic activities. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the university. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit 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. The Department of Civil Engineering has established the Honor Code because it has an obligation to the State and the public to prevent students from entering the profession who are not honest and trustworthy in their academic efforts. This Honor Code Policy allows the Department to recommend disciplinary action to the University Student Conduct Office and to remove students from the Department who have violated the Honor Code. This Honor Code is consistent with the *Student Conduct and Discipline* Chapter of the *Student Affairs* Section of the *Handbook of Operating Procedures* of the University of Texas at El Paso.

Course tutoring/homework help sites, such as Chegg, are strictly prohibited for use on exams and quizzes.

All students should sign the Honor Code Agreement and submitted to the Civil Engineering office for record keeping and be deeply familiar with the Honor Code Policy published in our website: <http://ce.utep.edu/honorcode.htm>

LABORATORY:

Weekly labs may consist of a combination of assignments, reports, discussions, etc. A weekly goals email will be sent at the beginning of the week to inform each student of the lab requirements for the week.

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Lab Attendance and Participation:

Lab attendance is required and attendance will be taken for each lab session. Practice problems from the book topic will be given. Participation is critical in understanding the concepts.

Lab Presentation:

The following are disciplines within Civil Engineering.

Civil Engineering

Environmental Engineering

Transportation Engineering

Water & Wastewater Engineering

Geotechnical Engineering

Structural Engineering

Smart Cities

Construction Engineering and Management

Each lab will be divided into groups. Each group will choose a discipline to research and present to their lab explaining the discipline. Each presentation should include:

- Explanation of the discipline
- Examples of projects
- Starting salary
- Instructors at UTEP focused on discipline
- Labs at UTEP related to discipline
- Any pertinent information that you feel will help your classmates understand the discipline

- Contact the TA to provide team members names, discipline to be presented, and date will present by Friday, Sept 17th. Presentation will be scheduled on Practice Problems/Discussion Lab Days

FINAL COMMENT:

I wish you all the best in the course. Please do not hesitate to ask questions. **Any specific comments that students have on how the course might be improved are particularly welcome, especially during the semester.**

****See next page for Tentative Schedule****

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TENTATIVE SCHEDULE:

NOTE: *Schedule may be modified to accommodate particular needs as the semester progresses.* It is to the students benefit that they read and study the chapters and sections as outlined in this calendar to reinforce the material that is presented in the class.

CE Fundamentals Fall 2021 Tentative Schedule					
Week	DATES	CLASS TOPICS	Quizzes	Exams	Lab Topic
1	Aug 23 - Aug 29	Syllabus, Code of Ethics			No Lab
2	Aug 30 - Sept 5	Intro to Writing/Chapter 1: General Principles			Lab Member Introductions/Form Groups/Practice Problems
3	Sept 6 - Sept 12 *Sept 6 Labor Day-No classes*	Chapter 2 Sections 2.1-2.4: Force Vectors	Quiz 1 Thursday Sept 9		No Lab
4	Sept 13 - Sept 19	Chapter 2 Sections 2.5-2.6: Force Vectors			Practice Problems/Intro to AutoCAD **Sept 17 deadline to submit lab group member names and presentation topic**
5	Sept 20 - Sept 26	Chapter 2 Sections 2.7-2.8: Force Vectors		Exam 1 Thursday Sept 23	Practice Problems/Discussion
6	Sept 27 - Oct 3	Chapter 2 Section 2.9: Force Vectors			Practice Problems/AutoCAD
7	Oct 4 - Oct 10	Chapter 3 Sections 3.1-3.3: Equilibrium of a Particle	Quiz 2 Thursday Oct 7		Practice Problems/Discussion
8	Oct 11 - Oct 17	Chapter 3 Section 3.4: Equilibrium of a Particle		Exam 2 Thursday Oct 14	Practice Problems/AutoCAD
9	Oct 18 - Oct 24	Chapter 4 Sections 4.1-4.4: Force System Resultants	Quiz 3 Thursday Oct 21		Practice Problems/Discussion
10	Oct 25 - Oct 31	Chapter 4 Sections 4.6-4.8: Force System Resultants			Practice Problems/Discussion
11	Nov 1 - Nov 7	Chapter 4 Section 4.9: Force System Resultants		Exam 3 Thursday Nov 4	Practice Problems/AutoCAD
12	Nov 8 - Nov 14	Chapter 12 Sections 12.1-12.2: Kinematics of a Particle	Quiz 4 Thursday Nov 11		Practice Problems/Discussion
13	Nov 15 - Nov 21	Chapter 12 Sections 12.6: Kinematics of a Particle	Quiz 5 Thursday Nov 18		Practice Problems/AutoCAD
14	Nov 22 - Nov 28 *Nov 25-26 Thanksgiving Holiday-No classes*	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)			No Lab
15	Nov 29 - Dec 2	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)		Exam 4 Thursday Dec 2	No Lab
Thursday, Dec 9					
Final Exam: 7:00am - 9:45am					