

CE 1301 Civil Engineering Fundamentals 23331

Spring 2023 Syllabus

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

Lecture Session: TR 7:30am – 8:20am

Lecture Location: Physical Science Bldg. 208

Instructor: Joanne Moyer, PhD

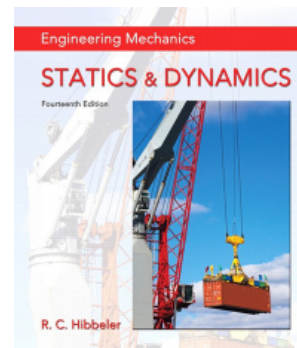
Email: jmmoyer@utep.edu

Office Hours: By appointment or weekly study sessions. Weekly study sessions to be announced.

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 Spring 2023
Course ID: moyer06766

<https://mlm.pearson.com/enrollment/moyer06766>

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.

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CELL PHONES:

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

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.

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 the following percentages:

Grading Scheme:	Exams:	25%
	Quizzes:	15%
	Assignments:	15%
	Lab Assignments	15%
	Lab Participation (attendance and discussions)	15%
	Lab Presentation	15%

Total 100%

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

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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 and attend class are inviting scholastic difficulty.

ASSIGNMENTS:

- *Assignment problems will be assigned via Pearson: Mastering Engineering.*
- *Written assignments may also be assigned during the semester.*
- 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.

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SEMESTER EXAMS:

Semester 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!!**
 - **Final Exam grade will replace the lowest exam grade, provided the final exam score is higher than the lowest exam grade.**
- **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.
- **Final Exam is optional**
- Please see tentative schedule for Final Exam day and time.
- Final Exam is comprehensive.
- **Final Exam grade will replace the lowest of the 4 Semester Exams provided the Final Exam grade is higher than the lowest Semester Exam.**

XTRA-CREDIT:

There will be 2 Xtra-Credit opportunities:

- 1) During the last week of courses; you will be asked to provide advice to future students about the course. Xtra-Credit includes **10-points towards your exam grade.**
- 2) Summarize at least 3 of the topics discussed during the Lab Presentations. The summary must be in Times New Roman 12 font, 1.5” spacing, 2-page summary. Xtra-Credit includes **10-points towards your lab attendance.**

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 Accomodation 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 Accomodation 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.

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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.

Lab Attendance and Participation:

Lab attendance is required and attendance will be taken for each lab session. Each lab attendance is worth 10-points.

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 a project and present to their lab explaining the discipline. Each presentation should include:

- Explanation of the discipline
- Explanation of the project and how the specific discipline chosen participates in the project
- Starting salary in El Paso and Other Cities
- Instructors at UTEP focused on discipline
- Any pertinent information that you feel will help your classmates understand the discipline
- Presentations should be a minimum of 10 minutes in length. Teams can use PowerPoint. All Team members must be included in the presentation.
- Contact the TA to provide team members names, lab presentation to be presented week of April 24th.

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.**

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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 1301 Civil Engineering Fundamentals Spring 2023					
Week	DATES	CLASS TOPICS	Quizzes	Exams	Lab Topic
1	Jan 17 - Jan 22	Syllabus, Code of Ethics			No Lab, MLK Jr Holiday
2	Jan 23 - Jan 29	Chapter 1: General Principles			No Lab
3	Jan 30 - Feb 5	Chapter 2 Sections 2.1-2.4: Force Vectors	Quiz 1 February 2		Lab will meet this week
4	Feb 6 - Feb 12	Chapter 2 Sections 2.5-2.6: Force Vectors			Lab will meet this week
5	Feb 13 - Feb 19	Chapter 2 Sections 2.7-2.8: Force Vectors		Exam 1 Thursday Feb 16	No Lab
6	Feb 20 - Feb 26	Chapter 2 Section 2.9: Force Vectors			Lab will meet this week
7	Feb 27 - March 5	Chapter 3 Sections 3.1-3.3: Equilibrium of a Particle	Quiz 2 Thursday March 2		Lab will meet this week
8	March 6 - March 12	Chapter 3 Section 3.4: Equilibrium of a Particle		Exam 2 Thursday March 9	No Lab
9	March 13 - March 19	Spring Break			
10	March 20 - March 26	Chapter 4 Sections 4.1-4.4: Force System Resultants			Lab will meet this week
11	March 27 - April 2	Chapter 4 Sections 4.6-4.8: Force System Resultants	Quiz 3 Thursday March 30		Lab will meet this week
12	April 3 - April 9	Chapter 4 Section 4.9: Force System Resultants	Quiz 4 Thursday April 6		Lab will meet this week
13	April 10 - April 16	Chapter 12 Sections 12.1-12.2: Kinematics of a Particle		Exam 3 Thursday April 13	No Lab
14	April 17 - April 23	Chapter 12 Sections 12.6: Kinematics of a Particle			Lab will meet this week
15	April 24 - April 30	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)	Quiz 5 Thursday April 27		Lab Presentations
16	May 1 - May 4	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)		Exam 4 Thursday May 4	No Lab
Final Exam: Thursday, May 11					
7:00am - 9:45am					