

# CE 1301 Civil Engineering Fundamentals 25255

## Spring 2021 Syllabus

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

**Lecture Session:** TR 7:30am – 8:20am via Zoom

**Instructor:** Joanne Moyer, PhD

**Email:** [jmmoyer@utep.edu](mailto:jmmoyer@utep.edu)

**Online Office Hours:** Zoom

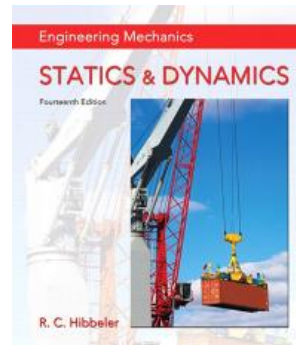
Monday and Thursday 1:00pm – 2:00pm

Or by appointment

**Office Location:** A-212 (availability in accordance with UTEP on-campus operations)

### REQUIRED MATERIALS:

**Textbook:** Statics & Dynamics.  
14<sup>th</sup> 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 25255 CE Fund Spring 2021  
**Course ID: moyer47039**

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

**Technology:** Webcam/Computer camera for online meetings and exams/quizzes required. Respondus LockDown Browser (available through blackboard, instructions available in blackboard course page)

**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

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- 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.

## 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:

<b>Grading Scheme:</b>	Exams:	300 points (100 points each exam)
	Final Exam:	150 points
	Quizzes:	100 points (25 points each quiz)
	Assignments:	150 points
	Lab Assignments/Discussion Board	100 points
	Lab Participation	100 points
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		<b>Total 900 points</b>

<b>Grading Structure:</b>	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?

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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 online lecture sessions, watch all videos, and read all course material assigned.*
- “Online Modules” will be provided for each Chapter and Sections, which include but not limited to: videos, lecture slides, readings, and assignments for the Chapters and Sections subject matter.
- 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 via blackboard. Respondus LockDown Browser (Webcam required) is required in order to take the quizzes through blackboard.

- **See tentative schedule for Quiz dates. Quizzes are offered at 8:00am (during class time) or 7pm MST. Each student will choose ONE quiz to complete.**
- Download Respondus LockDown Browser prior to the first online quiz. See Respondus LockDown Browser instructions for more information.
- Webcam/Computer Camera is required for the Respondus Lockdown Browser.
- I will send an email of quiz details at least a day before the quiz.
- 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.**
- **Each student must submit their hand calculations showing their work within 15 minutes after quiz completion in order to receive credit. Failure to do so will result in a zero regardless if the answer is correct. No calculations, no credit!!**

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- **Late quizzes will not be accepted. No exceptions!!**
- **No makeup quizzes will be administered. No exceptions!!**

## EXAMS:

Exams will be administered via blackboard. Respondus LockDown Browser (Webcam required) is required in order to take the exams on blackboard.

- Download Respondus LockDown Browser prior to the first online Exam. See Respondus LockDown Browser instructions for more information.
- Webcam/Computer Camera is required for the Respondus Lockdown Browser.
- Exams are closed book – closed notes. No cell phones allowed.
- **Each student must submit their hand calculations showing their work within 15 minutes after exam completion in order to receive credit. Failure to do so will result in a zero regardless if the answer is correct. No calculations, no credit!!**
- **No makeup exams will be administered. No exceptions!!**
- **See tentative schedule for Exam dates. The time for exams are at 7:30am or 7pm MST. Each student will choose ONE exam to complete.**

**Three** exams will be given. You must take the exams during the scheduled exam times. These dates are announced on the first week 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 via blackboard. Respondus LockDown Browser (Webcam required) is required in order to take the final exam on blackboard.

- Download Respondus LockDown Browser. See Respondus LockDown Browser instructions for more information.
- Webcam/Computer Camera is required for the Respondus Lockdown Browser.
- Final Exam is closed book – closed notes. No cell phones allowed.
- **Each student must submit their hand calculations showing their work within 15 minutes after exam completion in order to receive credit. Failure to do so will result in a zero regardless if the answer is correct. No calculations, no credit!!**
- **Students must take the final exam during the scheduled final exam time. No exceptions!!**

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- 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

## 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](mailto: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, discussion boards, 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.

## Discussion Boards:

Students will answer questions/statements issued on blackboard through the discussion board regarding lab activities. In addition to the student posting their answer to the questions/statements, each student will also comment on at least TWO other students post to their answers to the questions/statements. This results in a **minimum of 3 total posts** on the discussion board for each student. The comments should add to the discussion by sharing your experience or adding information. Comments such as great...really good... I enjoyed it...I agree, etc. will **NOT** be considered for grading purposes.

## Lab Attendance and Participation:

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

## 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.

Week	DATES	CLASS TOPICS	Quizzes	Exams	Lab Topic
1	Jan 19 - Jan 24	Syllabus, Code of Ethics			<b>No Lab, MLK Jr Holiday</b>
2	Jan 25 - Jan 31	Intro to Writing/Chapter 1: General Principles			Lab Member Introductions
3	Feb 1 - Feb 7	Chapter 2 Sections 2.1-2.4: Force Vectors	Quiz 1 Thursday Feb 4		Practice Problems/Intro to AutoCAD
4	Feb 8 - Feb 14	Chapter 2 Sections 2.5-2.6: Force Vectors			Exam Review
5	Feb 15 - Feb 21	Chapter 2 Sections 2.7-2.8: Force Vectors		Exam 1 Thursday Feb 18	Practice Problems/Civil Engineering
6	Feb 22 - Feb 28	Chapter 2 Section 2.9: Force Vectors			Practice Problems/AutoCAD
7	March 1 - March 7	Chapter 3 Sections 3.1-3.3: Equilibrium of a Particle	Quiz 2 Thursday March 4		Practice Problems/Environmental Engineering
8	March 8 - March 14	Chapter 3 Section 3.4: Equilibrium of a Particle			Practice Problems/AutoCAD
<b>9</b>	<b>March 15 - March 21</b>	<b>Spring Break</b>			
10	March 22 - March 28	Chapter 4 Sections 4.1-4.4: Force System Resultants	Quiz 3 Thursday March 25		Exam Review
11	March 29 - April 4	Chapter 4 Sections 4.6-4.8: Force System Resultants		Exam 2 Thursday April 1	Practice Problems/Transportation Engineering
12	April 5 - April 11	Chapter 4 Section 4.9: Force System Resultants			Practice Problems/AutoCAD
13	April 12 - April 18	Chapter 12 Sections 12.1-12.2: Kinematics of a Particle	Quiz 4 Thursday April 15		Practice Problems/Water & Wastewater Engineering
14	April 19 - April 25	Chapter 12 Sections 12.6: Kinematics of a Particle	Quiz 5 Thursday April 22		Practice Problems/Geotechnical Engineering
15	April 26 - May 2	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)			Exam Review
16	May 3 - May 6	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)		Exam 3 Thursday May 6	<b>No Lab</b>
<b>Thursday, May 13</b>					
<b>Final Exam: 7:00am - 9:45am</b>					