

# CE 1301 Civil Engineering Fundamentals 23017

## Spring 2024 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

**Lecture Location:** Business Administration Bldg Room 309

**Instructor:** Joanne Moyer, PhD

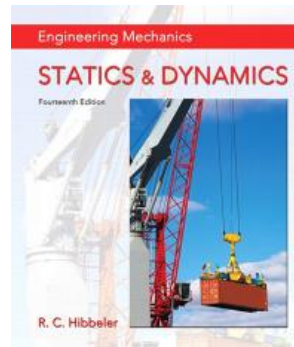
**Email:** [jmmoyer@utep.edu](mailto:jmmoyer@utep.edu)

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

**Office Location:** A-212

### REQUIRED MATERIALS:

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



**\*Can use eText from Pearson: Mastering Engineering in Lieu of Hardcopy Textbook**

**Assignments:** Pearson: Mastering Engineering

Course Name: CE 1301 Civil Engineering Fundamentals Spring 2024

**Course ID: moyer99201**

<https://mlm.pearson.com/enrollment/moyer99201>

**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

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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.

***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:

<b>Lecture</b>	Exams	35%
	Quizzes	10%
	Assignments	15%
<b>Lab</b>	Lab Assignments	10%
	Lab Attendance	10%
	Group Lab Project Presentation and Report	20%

**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!!**

Six 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 **3-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 **3-points towards your Group Project grade.**
- 3) Attend the UTEP Spring Career Fair Feb 1 or Feb 2. **3-points towards your Quiz grade.**

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## **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.

**Failure to attend 3-lab sessions will result in a Zero for Lab Attendance of the Grading Scheme. If a student is 15-minutes late to lab, they will be considered absent from the lab and will not receive credit for attendance.**

### **Group Lab Report and Presentation:**

**GROUP LAB PROJECT AND PRESENTATION INFORMATION AND INSTRUCTIONS WILL BE PROVIDED SEPARATELY AS ADDENDUM TO THIS SYLLABUS.**

### **Important Dates:**

- Week of Feb 5: Groups will be created within each lab
- Sunday, March 10: Submit rough draft of group project report
- Week of April 15: Group Presentations during respective Lab time
- Sunday, April 21: Group Project Report due
- Thursday, April 25: TEAMMATES peer evaluation for group project participation due

### **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 OR QUALIFIED ACCOMMODATIONS:

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>

## 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 Course 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.

Civil Engineering Fundamentals Spring 2024 Tentative Schedule					
Week	DATES	CLASS TOPICS	Quizzes	Exams	Lab Dates
1	Jan 16 - Jan 21	Syllabus, Code of Ethics			<b>No Lab</b>
2	Jan 22 - Jan 28	Chapter 1: General Principles			<b>No Lab</b>
3	Jan 29 - Feb 4	Chapter 2 Sections 2.1-2.4: Force Vectors	<b>Quiz 1 Syllabus Due Sunday Feb 4/Quiz 2 Thursday Feb 1</b>	<b>*UTEP Spring Career Fair Feb 1 and Feb 2*</b>	Labs Meet in E-217
4	Feb 5 - Feb 11	Chapter 2 Sections 2.5-2.6: Force Vectors		<b>Exam 1 Thursday Feb 8</b>	Labs Meet in E-217 <b>*Form Groups: Deadline Friday Feb 9*</b>
5	Feb 12 - Feb 18	Chapter 2 Sections 2.7-2.8: Force Vectors			Labs Meet in E-217
6	Feb 19 - Feb 25	Chapter 2 Section 2.9: Force Vectors	<b>Quiz 3 Thursday Feb 22</b>		Labs Meet in E-217
7	Feb 26 - March 3	Chapter 3 Sections 3.1-3.3: Equilibrium of a Particle			Labs Meet in E-217
8	March 4 - March 10	Chapter 3 Section 3.4: Equilibrium of a Particle		<b>Exam 2 Thursday March 7</b>	Labs Meet in E-217 <b>*Submit Rough Draft of Group Project Report-Deadline Sunday March 10*</b>
<b>9</b>	<b>March 11 - March 17</b>	<b>Spring Break</b>			<b>No Lab</b>
10	March 18 - March 24	Chapter 4 Sections 4.1-4.4: Force System Resultants			Labs Meet in E-217
11	March 25 - March 31 *No Classes Friday, March 29 for Cesar Chavez Day*	Chapter 4 Sections 4.6-4.8: Force System Resultants	<b>Quiz 4 Thursday March 28</b>		Labs Meet in E-217
12	April 1 - April 7	Chapter 4 Section 4.9: Force System Resultants	<b>Quiz 5 Thursday April 4</b>		Labs Meet in E-217
13	April 8 - April 14	Chapter 12 Sections 12.1-12.2: Kinematics of a Particle		<b>Exam 3 Thursday April 11</b>	Labs Meet in E-217
14	April 15 - April 21	Chapter 12 Sections 12.6: Kinematics of a Particle			Labs Meet in E-217 <b>*Group Presentations Week of April 15 and Group Project Report due Sunday April 21*</b>
15	April 22 - April 28	Chapter 12 Sections 12.6: Kinematics of a Particle	<b>Quiz 6 Thursday April 25</b>		<b>No Lab</b>
16	April 29 - May 2	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)		<b>Exam 4 Thursday May 2</b>	<b>No Lab</b>
<b>Thursday, May 9</b>					
<b>Final Exam: 7:00am - 9:45am</b>					