UNIVERSITY OF TEXAS AT EL PASO

CE 1301 Civil Engineering Fundamentals 24814
Spring 2022 Syllabus

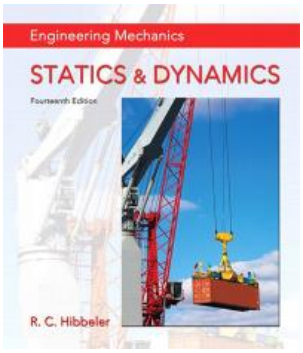
*Note: the instructor reserves the right to modify the following information as deemed necessary.

Lecture Session: TR 7:30am – 8:20am
Lecture Location: College of Business Administration Room 309

Instructor: Joanne Moyer, PhD
Email: jmmoyer@utep.edu

Office Hours: Monday 1:00pm – 2:00pm and Thursday 12:00pm – 1:00pm
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 24814 CE Fund Spring 2022
Course ID: moyer91226

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 the following percentages:

Grading Scheme:	Exams:	20%
	Final Exam:	15%
	Quizzes:	15%
	Assignments:	15%
	Lab Assignments/Discussion Board	15%
	Lab Ignite Presentation	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 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 TWO quiz grades will be dropped from your grades**.
- **No makeup quizzes will be administered. No exceptions!!**

Seven 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.**
- **The lowest exam grade will be dropped from your grades**.

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

- Contact the TA for help. The TA's contact information is provided on blackboard
- View Resources links provided for each subject under the "Weekly Content"
- Contact the Instructor for help. The Instructors contact information is provided on blackboard and this syllabus.

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.

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. 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	Geotechnical Engineering
Environmental Engineering	Structural Engineering
Transportation Engineering	Smart Cities
Water & Wastewater Engineering	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 (what do the engineers do?)
- Examples of projects
- Starting salary
- Instructors at UTEP focused on the particular discipline
- Any pertinent information that you feel will help your classmates understand the discipline

➢ **Contact the TA to provide team members names, and topic to be presented by Friday, Feb 25th. Presentations will be conducted on the week of April 25th.**

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 Spring 2022 Tentative Schedule					
Week	**DATES**	**CLASS TOPICS**	**Quizzes**	**Exams**	**Lab Topic**
1	Jan 18 - Jan 23 **(Monday, Jan 17 Martin Luther King Day-No Classes)**	Syllabus, Code of Ethics	**No Quiz**		**No Lab**
2	Jan 24 - Jan 30	Chapter 1: General Principles	**No Quiz**		**No Lab**
3	Jan 31 - Feb 6	Chapter 2 Sections 2.1-2.4: Force Vectors	Quiz 1 Thursday Feb 3		Lab Member Introductions/Form Groups
4	Feb 7 - Feb 13	Chapter 2 Sections 2.5-2.6: Force Vectors	Quiz 2 Thursday Feb 10		Engineering and Architectural Scales
5	Feb 14- Feb 20	Chapter 2 Sections 2.7-2.8: Force Vectors	**No Quiz**	**Exam 1 Thursday Feb 17**	**No Lab**
6	Feb 21 - Feb 27	Chapter 2 Section 2.9: Force Vectors	Quiz 3 Thursday Feb 24		Intro to Ignite Presentations**Friday, Feb 25 deadline to submit lab group member names and presentation topic**
7	Feb 28 - March 6	Chapter 3 Sections 3.1-3.3: Equilibrium of a Particle	Quiz 4 Thursday March 3		How to Read Construction Drawings
8	March 7 - March 13	Chapter 3 Section 3.4: Equilibrium of a Particle	**No Quiz**	**Exam 2 Thursday March 10**	**No Lab**
9	**March 14 - 20 Spring Break**				
10	March 21 - March 27 **(Friday, March 25 Cesar Chavez Day-No Classes)**	Chapter 4 Sections 4.1-4.4: Force System Resultants	**No Quiz**		AutoCAD
11	March 28 - April 3 **(*Friday, April 1 Drop/Withdrawal Deadline)**	Chapter 4 Sections 4.6-4.8: Force System Resultants	Quiz 5 Thursday March 31		AutoCAD
12	April 4 - April 10	Chapter 4 Section 4.9: Force System Resultants	**NO Quiz**	**Exam 3 Thursday April 7**	**No Lab**
13	April 11 - April 17 **(Friday, April 15 Spring Study Day-No Classes)**	Chapter 12 Sections 12.1-12.2: Kinematics of a Particle	Quiz 6 Thursday April 14		Ignite Review/Practice Presentations
14	April 18 - April 24	Chapter 12 Sections 12.6: Kinematics of a Particle	Quiz 7 Thursday April 21		AutoCAD
15	April 25 - May 1	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)	**No Quiz**		**Final Lab Ignite Presentations**
16	May 2 - May 5 **(Friday, May 6 Dead Day-No Classes)**	Chapter 13 Sections 13.1 - 13.4: Kinetics of a Particle: Force and Acceleration (Slope Deflection Equations)	**No Quiz**	**Exam 4 Thursday May 5**	**No Lab**
Thursday, May 12					
Final Exam: 7:00am - 9:45am					