SYLLABUS

CE 2315: Statics

CRN: 12372

Fall 2022
August 22, 2022 – December 1, 2022
Psychology 306, TR 10:30 am – 11:50 am

Instructor

Dr. Imad Abdallah
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Office Hours: T/R 1:30 pm – 3:00 pm

Course Description

CE 2315, Statics, is a course that introduces students to the fundamental principles of Newtonian mechanics, equilibrium of particles and rigid bodies such as beams, frames and trusses, forces in space; distributed forces; free body diagrams; moments; friction; centroids and moments of inertia. Vector algebra and calculus are used. Students will learn the principles that govern the behavior of rigid-body systems in static equilibrium and will develop critical thinking skills necessary to formulate appropriate approaches to problem solutions.
Prerequisite: MATH 1411, Calculus I (with a grade of "C" or better)

Tech-Enhanced Course

We will meet at the scheduled time to discuss material and assignments. Some lectures may be available online for students to review. You are expected to review the material before coming to class. Assignments will be available on Mastering Engineering and asynchronous discussion forums will be available for online discussion.

Attendance Policy

Attendance for the entire length of this course is highly encouraged. Students must be prepared to participate in individual or group discussions in class. Students may be assigned quizzes, pop quizzes and/or problems to solve in class and may be required to present their solution in class for discussion.

Follow campus safety guidelines. These can be found on the Resuming Campus Operations webpage.

Course Objectives or Expected Learning Outcomes

At the end of this course, students will be able to:

- identify an engineering problem appropriate for engineering mechanics analysis;
- draw a free-body diagram and identify all forces and moments acting on an object at rest;
- represent force and moment systems with equivalent systems;
- perform an analysis to identify all forces and moments acting internally or externally on an object; and
- determine geometric properties of one, two and three-dimensional objects.

Announcements

Important information will be discussed in class. Announcements may be posted through email on Blackboard, but it is your duty to meet face to face in class, do not expect all announcements to be posted online. Any announcement posted on Blackboard will appear on your Blackboard dashboard when you log in and/or will be sent to you directly through your preferred method of notification (default: email). Please make certain to check them regularly, as they may contain any important information about upcoming homework assignments, exams or class concerns.

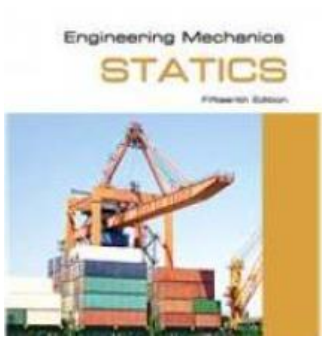
Teaching Assistant

Name: Samina Samrose
E-mail: ssamrose@miners.utep.edu
Office Hours: M/W 3-4:30pm RM E224 or by appointment

Required Materials

Regular access to a computer, Blackboard, and your UTEP email account.

Required Textbook:

	*Engineering Mechanics : Statics 15th* Russell C. Hibbeler 15th Edition, Pearson, 2022 ISBN 9780134814971 ISBN 978-0-13-481497-1

Mastering Engineering

To access Mastering Engineering, go to the following link:
https://www.pearson.com/mastering
with Course ID: abdallah88088
Course name: CE 2315 Mechanics I: Statics (Fall2022, 12372)
Student Registration Instructions are available in Blackboard.

Course Subjects

Chapter	Topic
1	General principles
2	Force vectors
3	Equilibrium of a particle
4	Force system resultants
5	Equilibrium of a rigid body
6	Structural analysis
7	Internal Forces
9	Center of gravity and centroid
10	Moment of inertia

Course Assignments and Grading

Your grade for this course will be assessed based on your performance using the criterion shown in Option 1. This option will allow you to exempt the final exam, and your grade will be calculated using the mid-term exams only. However, at the end of the semester, if you consider that you would like to improve your final grade, you may take the comprehensive final exam and you will be graded as per Option 2 or Option 3. Option 2 and option 3 are not recommended.

Criterion	Option 1 (default)	Option 2	Option 3
Quizzes	10%	10%	10%
Homework	20%	20%	20%
Mid-Term Exams (3 exams)	80%	55%	0%
Comprehensive Final Exam	*Exempt*	25%	80%
Total	110%	110%	110%

Important notes (read!):

- Every student is required to take all mid-term exams on campus, at the scheduled time. There will be no make-up exams. No excuses!
- The instructor reserves the right to revise this grading plan. However, students will be informed of any changes during the semester.

Your final grade will be calculated based on the points you have accumulated as follows:

- A ≥ 90
- B ≥ 80 but < 90
- C ≥ 70 but < 80
- D ≥ 60 but < 70
- F < 60

Homework

Homework problems will be assigned every week through Pearson Mastering Engineering. The Mastering Engineering website can be accessed at https://www.pearson.com/mastering.

The assigned homework problems need to be completed online before the due date. Yet, students are encouraged to solve as many problems in the book as possible. Late submissions are penalized 20% over each day late. You are limited to 4 attempts per question. Use the hints provided in the Mastering

Engineering website for solving the problems. You are not penalized for using hints. The homework assignments are not optional: students that do not submit homework assignments at all are at risk of receiving a grade of "Fail" (F) or "Incomplete" (I).

You are encouraged to discuss the homework problems in class or in the discussion board with your classmates, the teaching assistant, or the instructor. Questions about homework problems presuppose that you have made a diligent attempt to solve the problem beforehand. You will do well in the class if you understand thoroughly all the problems you solved. You can also discuss homework problems and lectures in the discussion board.

Exams

You will take the exams on campus, at the scheduled time and they will be timed. No additional time will be granted if you are late to the exam. There will be absolutely no make-up exams! No excuses will be accepted. If you cannot take the exams on campus, it is recommended that you take this course at a later time, when you can fully commit to the requirements of this course.

Make sure that you do not have a cell phone or any other electronic item in your possession during the exams. Turn off your cell phone and store it in your backpack. 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 (0).

Neatness is essential. Give necessary details in the solution so that people can easily follow your calculations. Include free body diagrams. The TA is instructed to grade with a 0 (zero) any problem that is hard to follow; it is not the instructors' duty to puzzle out your calculations. You need to prove that you are able to communicate effectively, that you can identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics covered in class and that you can apply engineering design to produce a solution. Disputes about grading must be made within 2 days of receiving the grade. No exceptions.

Identify your final answer. You can underline your answer, indicate it with an arrow, or draw a rectangle or circle around it. Solutions with multiple answers are not acceptable and will not get full credit. Clearly describe the process to get to that answer. If you want any credit on a problem, you need to show all your calculations. If there are no calculations, even if the problem is correct, you will get a zero (0).

Final Exam (only for Option 2 an Option 3)

Final examination is scheduled on Thursday, December 8, 2022, from 10:00 am to 12:45 pm.

Quizzes

Short quizzes will be given often in class. The subject matter of these quizzes will be drawn from topics covered in previous lectures and from assigned homework a week after the homework is assigned. A problem in a quiz will be graded on a 1 point basis. You will receive a grade of 0 (zero) if you miss a quiz. There will be absolutely no make-up quizzes!

Allowed Calculators:

The following will be the only calculators allowed in exams:

- Hewlett Packard – HP 33S and HP 35S, but no others
- Casio – All FX-115 and FX-991 models (must have "fx-115" or "fx-991" in its model name)
- Texas Instruments – TI-30X and TI-36X (must have "TI-30X" or "TI-36X" in its model name)

These are the same calculators that are currently being allowed in the Fundamental of Engineering (FE) and Professional Engineering (PE) exams (http://www.ncees.org/exams/calculators/). 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.

Technology Requirements

Part of this course content is delivered via the Internet through the Blackboard learning management system (LMS) and Mastering Engineering. Ensure your UTEP e-mail account is working and that you have access to the Web. You may use any of the primary Web browsers—Firefox, Google Chrome, Opera, Edge, Safari, etc. When having technical difficulties, try switching to another browser.

Check that your computer hardware and software are up-to-date and able to access all parts of the course. If you encounter technical difficulties of any kind, contact the Help Desk. If you do not have access to a computer off campus, there are computer labs in the Library that you can use to participate in the course.

Netiquette

- Discussion boards are meant to discuss topics related to the course material.
- Always consider audience. Remember that members of the class and the instructor will be reading any postings.
- Anonymous postings will not be allowed.
- Respect and courtesy must be provided to classmates and to instructor at all times. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a face-to-face situation. Remember to share your knowledge.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on in these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space. If students wish to do so, they have the ethical obligation to first request the permission of the writer(s).

Drop Policy
To drop this class, please contact the Registrar's Office or the Civil Engineering Department to initiate the drop process. If you cannot complete this course for whatever reason, please contact me. If you do not, you are at risk of receiving an "F" for the course.

Accommodations Policy
The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services.

COVID-19 PRECAUTION STATEMENT
Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

Study Guide
Read the text to be discussed prior to the scheduled class and review the subject thoroughly after the class. Read the textbook carefully. Work on all examples given in the text and solve as many unassigned problems as you can. Expect to spend 8 to 10 hours each week on the subject. Establish a good studying habit and you will do very well in the class.

Scholastic Integrity
Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more HOOP: Student Conduct and Discipline.

Student Resources

UTEP provides a variety of student services and support:

- Advancement Center for Engineering Students (ACES) and the Miner Learning Center (MLC): Students are reminded that tutoring services are available at ACES, located on the first floor of the Classroom Bldg., room C-001, and at MLC, located at the Library, room 205. These services are provided to you by the University. Check the schedules and make use of the services.
- Engineering Technology Center: Resources for downloading engineering software necessary for this class is available at ETC at no cost for you. You can request assistance from them by contacting them by phone or email.
- Help Desk: Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.