

**Textbook:**  
**ed.****Engineering Mechanics: Statics 15<sup>th</sup>**

by R.C. Hibbeler  
Mastering Engineering Course ID:  
carrasco30627

**Instructor:**

Cesar Carrasco, PhD  
Office: A206  
E-mail: ccarras@utep.edu  
Phone: 747-6919  
Office Hours: TBD

**Prerequisites:**

CE 1301 Fundamentals of Civil  
Engineering or PHYS 2420  
MATH 1411 Calculus I

Engineering Mechanics

**STATICS**

Fifteenth Edition



R. C. HIBBELE

**Course Objectives**

At the end of the course students will have developed the skills to:

1. Identify an engineering problem appropriate for engineering mechanics analysis;
2. Draw a free-body diagram and identify all forces and moments acting on an object at rest;
3. Represent force and moment systems with equivalent systems;
4. Perform an analysis to identify all forces and moments acting internally or externally on an object; and
5. Determine geometric properties of one, two and three-dimensional objects.

**Topics covered**

1. General Principles (Chapter 1)
2. Force Vectors (Chapter 2)
3. Equilibrium of a Particle (Chapter 3)
4. Force System Resultants (Chapter 4)
5. Equilibrium of a Rigid Body (Chapter 5)
6. Structural Analysis (Chapter 6)
7. Internal Forces (Chapter 7)
8. Friction (Chapter 8)
9. Center of Gravity and Centroid (Chapter 9)
10. Moment of Inertia (Chapter 10)

## Grades

Your grade for this course will be assessed based on your performance on the following:

Homework	(10%)
Quizzes	(10%)
Regular exams	(50%)
Final comprehensive exam	(30%)

All students must take the final exam and need to obtain a 50% or higher grade to pass the class.

The instructor reserves the right to revise this grading plan. However, students will be informed of any changes during the semester.

## Study Guide and Aids

Students are encouraged to form study groups to prepare for class, ask questions about homework problems and study for exams. Teaching and learning to and from each other is one of the best techniques to improve the skills needed to perform well in this and any other course. Students are expected to dedicate 8 to 10 hours a week studying and preparing for this course.

Establish a good studying habit and you will do very well in the class.

### Online Resources

Students are required to create an account in Mastering Engineering and access the course using the ID given above. Homework will be assigned through this system and it is a great source of study materials. Students are also encouraged to visit the textbook published website for additional study aids.

Students are also encouraged to use the free Carnegie Mellon University – Open Learning Initiative (<http://oli.cmu.edu/>).

Students are also encouraged to access the Your Other Teacher site ([www.YourOtherTeacher.com](http://www.YourOtherTeacher.com)) as a study aid. The use of their resources requires a small fee.

### Instructor's Office Hour

You are always welcomed to visit the instructor at the posted hours or by making an appointment.

### Teaching Assistant

There will be a teaching assistant (TA) assigned to each session of the course. The TA will assist the instructor in grading quizzes, proctoring exams, and answering questions. In addition to the instructor's office hour, there will be TA's office hours to answer your questions. The TA's schedule will be announced in the second week of the class.

## Attendance and Tardiness

Attendance is mandatory. Absence can be checked by the instructor through exams, quizzes, roll calling, randomly picked names for problem solving in class, or other mechanisms. You could receive an F grade if you miss more than three classes without the instructor's consent. The instructor appreciates all efforts to attend the class. Part of being a professional is being on time and being prepared to do your job. This applies to your career as a student as much as it does to your future career as an engineer. Coming to

class late is unprofessional and is very disruptive to the class. It interferes with the instructor's presentation, but more important, it interferes with the other students' concentration. You are expected to be in class and prepared to participate when the class bell rings. If you are late to class, you are to come in quietly and take a seat in the back of the room. There will be no penalty for being late. However, all exams, and quizzes will be given at the beginning of the classes. No additional time will be allowed for late attendees.

### **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.

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>