

# CE 3361 Design of Steel Structures 22999

## Spring 2024 Syllabus

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

**Lecture Session:** MWF 11:30am – 12:20pm

**Lecture Location:** Liberal Arts Bldg 108

**Instructor:** Joanne Moyer PhD

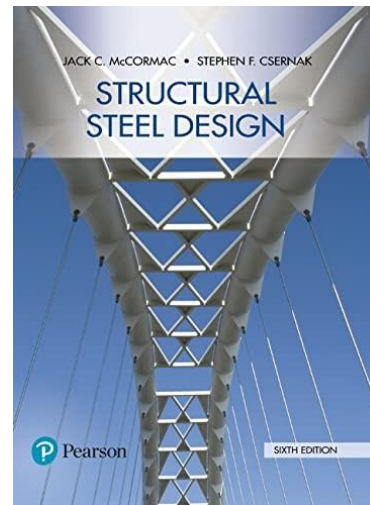
**Email:** [jmmoyer@utep.edu](mailto:jmmoyer@utep.edu)

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

**Office Location:** A-212

### REQUIRED MATERIALS:

**Textbook:** Structural Steel Design  
6<sup>th</sup> Edition by: Jack C. McCormac and  
Stephen F. Csernak  
ISBN-10: 0-13-458965-3  
ISBN-13: 978-0-13-458965-7



### AISC Steel Construction Manual:

Design for Steel Structures  
Steel Construction Manual, 15 Ed. (Print)

1. Login or create an AISC student account at [aisc.org/student-request-landing](https://aisc.org/student-request-landing).
2. Complete the demographics survey, and click Next to move to the next page.
3. Use the grey + sign to generate a student discount code. You must have access to your .edu email address to retrieve the student discount code for your purchase. Input the class key **M3334789-83613**
4. Access your .edu email address to retrieve your student discount code and link to the student bookstore to make your purchase.
5. Your coupon code is valid from **1/3/2024 to 3/2/2024**.

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**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.

*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:

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

1. Become familiar with codes, standards, and specifications commonly used in structural design;
2. Become familiar with structural steel sections and materials;
3. Understand basic behavior and failure modes for simple structural steel members and connections.
4. Be able to analyze and design simple structural steel members in tension, compression, flexure and shear and their connections (bolted and welded)
5. Understand the role and responsibilities of the structural engineer in a design project.

## GRADING POLICY:

Your grade for this course will be determined on the basis of the following percentages:

<b>Grading Scheme:</b>	Five Exams:	75%
	Group Term Presentation and Projects:	25%
		<hr/>
		<b>Total 100%</b>

**If there is a discrepancy on the grading of your Exams or Projects, you must inform the Instructor as soon as the Exam/Projects Grades are known to the student. Discrepancies will NOT be addressed after 3 days of when students are informed of their grades.**

**Grading Structure:**

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?

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.

## SUGGESTED PRACTICE PROBLEMS:

- Suggested practice problems will be assigned for every topic. *However, the problems will not be collected or graded.*
- You are encouraged to work on assignment problems in groups, discuss with the TA and/or Professor.
- It is highly recommended that suggested problems are solved in order for students to better understand the material and for practice.

## 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!!**
  - **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.**

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**Five** 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 5 Semester Exams provided the Final Exam grade is higher than the lowest Semester Exam.**

## XTRA-CREDIT:

There will be 1 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. Deadline to be announced.**

## 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>

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

## 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.**

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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 class.

<b>CE 3361 Design of Steel Structures Spring 2024 Tentative Schedule</b>				
Week	DATES	CLASS TOPICS	Group Project	Exams
1	Jan 16 - Jan 21	Syllabus, Chapter 1 Intro to Steel Design		
2	Jan 22 - Jan 28	Chapter 2 Specs, Loads, and Methods of Design		
3	Jan 29 - Feb 4	Chapter 2 Specs, Loads, and Methods of Design		<b>Exam 1 Friday Feb 2</b>
4	Feb 5 - Feb 11	Chapter 3 Analysis of Tension Members		
5	Feb 12 - Feb 18	Chapter 3 Analysis of Tension Members		
6	Feb 19 - Feb 25	Chapter 4 Design of Tension Members		<b>Exam 2 Friday Feb 23</b>
7	Feb 26 - March 3	Chapter 4 Design of Tension Members		
8	March 4 - March 10	Chapter 5 Intro to Axially Loaded Compression Members	<b>Project Review Due Sunday, March 10</b>	
<b>9</b>	<b>March 11 - March 17</b>	<b>Spring Break</b>		
10	March 18 - March 24	Chapter 5 Intro to Axially Loaded Compression Members		<b>Exam 3 Friday March 22</b>
11	March 25 - March 31	Chapter 6 Design of Axially Loaded Compression Members		<b>Friday March 29 No Class Cesar Chavez Day</b>
12	April 1 - April 7	Chapter 6 Design of Axially Loaded Compression Members		<b>Exam 4 Friday April 5</b>
13	April 8 - April 14	Chapter 7 Design of Column Base Plates		
14	April 15 - April 21	Chapter 8: Introduction to Beams	<b>Group Project Report due Sunday April 21</b>	
15	April 22 - April 28	<b>Group Presentations</b>		
16	April 29 - May 2	Chapter 8: Introduction to Beams		<b>Exam 5 Wednesday May 1</b>
<b>Wednesday, May 8</b>				
<b>Final Exam: 1:00pm - 3:45pm</b>				