

**UNIVERSITY OF ARIZONA**  
Department of Civil Engineering and Engineering Mechanics

**CE334 – STRUCTURAL STEEL DESIGN**  
**POLICY & SYLLABUS**  
Spring 2017

Instructor: Dr. Robert Fleischman, Room 220H, Civil Engineering  
 Phone: 621-6550  
 Email: rfleisch@email.arizona.edu  
 Lecture: Tu Th 8:00-9:15am CE 201  
 Office hours: Tu Th 2:00-4:00pm  
 Code\*: Steel Construction Manual 14<sup>th</sup> Edition, AISC 2011  
 Outline Text†: Structural Steel Design: McCormac and Csernak, 5<sup>th</sup> Edition, Prentice Hall 2012  
 Reference Text†: Steel Structures: Design & Behavior Salmon & Johnson  
 Grader: Baha Kuzuku [ibk2@email.arizona.edu](mailto:ibk2@email.arizona.edu) OH: Mon Wed 2-3:30pm  
 Webmaster: Anshul Argawal [anshul@email.arizona.edu](mailto:anshul@email.arizona.edu)  
 Class website: <http://d2l.arizona.edu>

\* Required † Not Required

**Course Content**

Week of	TOPIC	ARTICLES	HOMEWORK PROBLEMS	
Jan.	12 Steel the Material	<b>Chap. 1:</b> <i>See Outline 1</i>	<b>1:</b> See d2L module 1	
	19 LRFD Design	<b>Chap. 2:</b> <i>See Outline 2</i>	<b>2:</b> See d2L module 2	
	26 Tension Members	<b>Chap. 3:</b> <i>See Outline 3</i>	<b>3:</b> See d2L module 3	
Feb.	2 Tension Members	<b>Chap. 4:</b> <i>See Outline 4</i>	<b>4:</b> See d2L module 3	
	9 High Strength Bolts	<b>Chap. 12:</b> <i>Outline 5</i>	<b>12:</b> See d2L module 4	
	16 Structural Welding	<b>Chap. 14:</b> <i>Outline 6</i>	<b>14:</b> See d2L module 4	
	23 Columns: Theory	<b>Chap. 5:</b> <i>Outline 7</i>	<b>5:</b> See d2L module 5	
Mar.	1 Columns: Design	<b>Chaps. 6, 7:</b> <i>Outline 8</i>	<b>6:</b> See d2L module 5	
	8 Columns: UnSym. etc.	<b>Chap. 6:</b> <i>Outline 9</i>	<b>6:</b> See d2L module 5	
	>>>>>>> Spring Break <<<<<<<<			
	22 Beams: Theory	<b>Chap. 8:</b> <i>Outline 10</i>	<b>8:</b> See d2L module 6	
	29 Beams: Unbraced	<b>Chap. 9:</b> <i>Outline 11</i>	<b>9:</b> See d2L module 6	
Apr.	5 Beams: Design	<b>Chaps. 9:</b> <i>Outline 12</i>	<b>9:</b> See d2L module 6	
	12 Beam Shear, Deflection	<b>Chap. 10:</b> <i>Outline 13</i>	<b>10:</b> See d2L module 6	
	19 Composite Floors: Theory	<b>Chap. 16:</b> <i>Outline 14</i>	<b>16:</b> See d2L module 7	
	26 Composite Floors: Design	<b>Chaps. 16,19:</b> <i>Outline 15</i>	<b>16:</b> See d2L module 7	
May	3 Beam-Columns, LFRS	<b>Chap. 11:</b> <i>Outline 16</i>	<b>11:</b> See d2L module 8	

**1. PREREQUISITES FOR THE COURSE**

C E 333 is a required prerequisite (or co-requisite) for **CE undergraduate students** enrolled in C E 334. All other students require instructor approval if this prerequisite is not met

**2. OUT-OF-CLASS COMMUNICATION**

I will send messages through the class list email list from d2L. When corresponding, please reply to me directly for individual questions; anything of general use for the class can be a “reply all”. Please use the tag line “CE 334” somewhere in the Subject heading please.

**3. COURSE MATERIAL**

The course website, <http://d2l.arizona.edu>, contains the syllabus, notes, presentations, handouts, video tutorial links, quizzes, assignments. The d2L site will be updated to post solutions after the assignments have been turned in. Students will be notified of any new postings in class and via email.

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**4. OFFICE HOURS**

**Office hours as listed above will be strictly held.** Exceptions: (1) If the student has a legitimate ongoing conflict (class, lab, work, school activity) with the posted office hours, he or she must see the instructor immediately to determine an alternate arrangement. (2) If for any reason the instructor is not present when a student visits during posted office hours, the student shall email the instructor and a timely arrangement will be made at the student's convenience. Students are encouraged to indicate via the listserv the topics or particular questions they plan to ask at office hours, and the time they plan to attend, thereby allowing other members of the class to coordinate their schedules to attend simultaneously.

**5. HOMEWORK POLICY**

**Homework, assigned in a given week, is typically due the next week (dues dates will be posted throughout the semester on D2L).** (The email/website will indicate variations from this schedule). Homework must be placed in the CE334 basket at the CE Office before 5pm on the due date. The homework will be graded by your TA and returned as soon as possible, typically one week after submission. Students will work in teams of two and must answer all questions and check all work together. Marks will be deducted for not answering all questions. However, not all questions may be graded. Late homework can be turned in directly to the CE334 basket at the Department Office at 50% penalty. Homework submitted after graded homework is returned or solutions are posted will not be accepted **and a grade of zero will be assigned.**

**6. HOMEWORK PROCEDURE:**

- Homework is to be done neatly on Engineering Problem paper using only one side of a sheet.
- Always use a straight edge when drawing lines.
- Work shall be neatly lettered, logically arranged and capable of being readily reviewed by the instructor. Do not crowd problems together on the sheet.
- Each problem should include:
  - ✓ Student's name, subject name, and page number identification (top of page only).
  - ✓ Problem identification (Chapter; problem number).
  - ✓ Problem statement: normally includes a sketch, and must be sufficient to define the problem so that the solution can be evaluated without reference to the textbook.
  - ✓ The solution must include diagrams (e.g., free-body diagram etc) as are necessary to understand the work and the meanings of the symbols employed.
  - ✓ Results are to be given to three significant figures.
  - ✓ Answers must be complete with all necessary information such as magnitude, units of measurement and vector direction. Underline intermediate answers. Box final answers. **Points will be deducted for not reporting the proper units.**

**7. GRADING SCHEME**

3 Midterm Exams	3@20% = 60%
Homework	10%
Quizzes	5-10%
Projects	2@10-12.5% = 20-25%

- A – 100 - 90**
- B – 89.9 – 80**
- C - 79.9 – 70**
- D - 69.9 – 60**

Final grades will be rounded to one decimal point. Homework and project grades will not be curved. Exam grades will be curved (up only).

**8. EXAMINATIONS**

You **will be required** to take three examinations during the semester. Semester exam dates and times will be established by the class. Examinations may be offered out of class (in a 2 hour evening period) by class agreement. Please ensure that you note the dates and agreed times, as no make up examination will be given. All exams are closed book; calculators are permitted.

There will be no make-up for missed examinations unless the student contacts the instructor: (1) one week prior to the exam due to a legitimate scheduling conflict (OUT OF CLASS EXAM ONLY); or (2) prior to the exam due to an unforeseen emergency situation. What constitutes legitimate scheduling conflicts and unforeseen emergency situations is at the discretion of the instructor. **An unexcused missed examination is scored as zero.**

Examinations are regarded as an engineering report. Procedures and presentation of solutions should be precise and legible. Penalties are assessed for: (1) algebra and arithmetic errors; (2) answers presented without proper units, sign or direction; (3) incomplete free body diagram; and (4) illegible presentation. **No credit will be given for correct answers obtained by incorrect reasoning or compensation errors.** Partial credit may be given for work that pertains to the correct solution.

Surprise quizzes will not be administered if no student attempts to complete his or her homework during the lecture period.

**9. ACADEMIC INTEGRITY**

One sanction for dishonest academic work permitted under the University CODE OF ACADEMIC INTEGRITY is a failing grade in the course. The grade of E will be assigned for dishonest academic work.

**10. ATTENDANCE POLICY**

Attendance is required. More than 3 unexcused absences may result in being administratively dropped from the course. Three late arrivals or early departures from class are equivalent to one absence. If a student is administratively dropped after the fourth week of classes, it will result in a failing grade being awarded in that course.

**THIS POLICY WILL BE STRICTLY ENFORCED.**