

**CE 763**  
**Behavior of Steel Members**  
**Spring 2018**  
**Class Information**

Hours / Location: TR 12:30 – 1:45, MRB-E 243

Professors: Dr. Karl E. Barth

Office: ESB 617

Office Hours: to be scheduled

Textbook: AISC Steel Construction Manual, 14<sup>th</sup> or 15<sup>th</sup> Edition

Organization:

- 2 lectures per week
- homework as assigned
- 2 examinations (1 during regular semester and 1 during finals week)

Grade Weighting:

• Homework	=	30 %
• Exam I	=	35 %
• Exam II	=	35 %
Total	=	100 %

Topics will include:

- Review of fundamental steel bridge design by LRFD
- Discussion of design and design philosophy
- Loads and load transfer in low and medium rise steel framed systems
- Connections
- Composite construction systems
- Overview of bracing systems for steel frames
- Stability and second order design of steel framed systems

Course Statement:

This course focuses on the behavior and design of steel members, frames, subassemblies and components in steel building systems.

Students are reminded that this is a graduate level course. You are expected to have the capacity for individual learning and understanding. You may face assignments in which not all information has been presented to you in the course lectures and you will be required to conduct additional reading to obtain necessary information.

I will be presenting a number of reports, publications, and journal articles related to course topics, some in advance of lectures to facilitate class discussion.

Homework Policy:

You should approach your homework as though you are in a design office. Proper documentation of scope of problem, objectives, assumptions, calculations and diagrams, and final solutions or design recommendations is key. The work product of these assignments shall be a neat and organized fashion such that they would be adequate for independent design review. Format shall be as follows;

- **Your name, course number, problem number, and due date must appear on all homework**
- **Successive pages of multiple page sets must be initialed and should have the pagination (i.e., 1/3, 2/3, 3/3, etc.) in the upper right-hand corner of the page**
- **All assignments are to be done NEATLY using**
  - **Pencil**
  - **Engineering paper**
    - **each problem should be started on a new sheet of engineering paper**
    - **only one side of the paper is to be used (the lighter side)**
  - **Straight edges must be used for all figures**

- **Multiple-page sets are to be stapled together in the upper left hand corner**
- **Late homework will not be accepted**

Examination Policy:

- Exams will be comprehensive in the sense that knowledge of material from previous sections will be certainly be expected of you to answer the questions correctly. However, the focus of the questions will only be on current material coverage.
- Exams will be closed book and closed notes.
- ***You are to work on one side of the paper only on your exam sheets.***
- In the event that you question the grading of an exam problem, you must write an “appeal” summarizing your concerns, staple this to your exam, and submit this to the instructor. Note that the appeal should be typewritten and must be filed no later than, but inclusive of, the second class period following the return of the exam.

Attendance Policy:

- You are expected to attend class.