

CE 421 – FUNDAMENTALS OF STEEL DESIGN (3-0)3
FALL 2025-2026

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Course Hours: Thursday 8:45-11:30

Reference Books and Codes:

- Çelik Yapıların Tasarım, Hesap ve Yapım Esasları, 2016
- AISC 360-10, Specification for Structural Steel Buildings
- TS 498 Yapı Elemanlarının Boyutlandırılmasında Alınacak Yüklerin Hesap Değerleri, 1997
- TS ISO 9194 Yapıların Projelendirilme Esasları-Tasıyıcı Olan ve Olmayan Elemanlar Depolanmış Malzemeler-Yoğunluk, 1997
- Steel Structures, Salmon C. G. and Johnson, J.E., 4th Edition, ISBN 0-673-99786-3, Harper and Collins
- Çelik Yapıların Tasarım, Hesap Yapım Esaslarına Dair Yönetmelik Hakkında Uygulama Kılavuzu, Çevre ve Şehircilik Bakanlığı
- Çelik Yapıların Tasarımı, Abi Aghayere, Nobel, 2018

Grading Policy: Midterm 1: 27%
Midterm 2: 28%
Final Exam: 40%
Participation: 5%

Attendance Policy: 1. It is compulsory to attend at least 70% of the active class hours to have a letter grade.
2. Attendance is not compulsory for students that obtained a passing grade from the course. Second rule overwrites the first rule.

No cellular phone policy: Cellular phones are not permitted to be accessed in the class and exam hours. Students that do not follow this rule will be invited to the outside of the classroom in that class hour. If you need to reach your phone for a compulsory condition, please ask permission from the instructor.

Recitation: There will be frequent online recitations. Schedule will be organized.

Tentative Course Outline:

<u>Introduction to Design of Steel Structures (2 Hours)</u>
<u>Steel and Its Properties (1 Hours)</u>
<u>Introduction to Connections (2 Hours)</u>
<u>Tension Members (5 Hours)</u>
<u>Structural Fasteners (4 Hours)</u>
<u>Welding (4 Hours)</u>
<u>Compression Members (7 Hours)</u>
<u>Laterally Supported Beams (7 Hours)</u>
<u>Beam-Columns (7 Hours)</u>