

# İzmir Institute of Technology - Department of Civil Engineering

## CE 322 Introduction to Structural Analysis - Spring 2025/2026 Course Outline

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### COURSE

#### INSTRUCTOR

Dr. İzzet Özdemir

Department of Civil Engineering

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### COURSE

#### ASSISTANT

M.Sc. E. Alper Kurt

Department of Civil Engineering

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### COURSE

#### SCHEDULE

Tuesday 13:30 - 15:15 Room : CE - B 211

Wednesday 8:45 - 9:30 Room: CE - B 211

### COURSE PAGE

Teams page is going to be activated soon and used throughout the semester.

### TEXTBOOK

Structural Analysis, by : R.C. Hibbeler, Eight Edition in SI Units, 2011, Prentice - Hall

### OBJECTIVES

The objective is to learn the displacement based structural analysis techniques commonly used for the analysis of statically indeterminate structures.

### COURSE CONTENT

- Deflections (Sections 8.2, 8.4, and 8.5)
- Displacement Method of Analysis : Slope-Deflection Equations (Chapter 11)
- Displacement Method of Analysis : Moment Distribution (Sections 12.1, 12.2, 12.3)
- Truss Analysis Using the Stiffness Method (Sections 14.1, 14.2 14.3, 14.4, 14.5, 14.6, 14.7)
- Beam and Frame Analysis Using the Stiffness Method (Chapter 15 & Chapter 16)
- Introduction to Influence Lines (Sections 6.1, 6.2, 6.3)
- Introduction to SAP2000 - Structural Analysis and Design Program

### GRADING

The tentative overall grade constitution is as follows:

- Mid-term I : 30 %
- Mid-term II : 30 %
- Final : 40 %

Make-up examinations can be given to those students with valid excuses approved by the department. A single make-up exam is given at the end of the term.

## COURSE CONDUCT

Attendance to lectures is COMPULSORY as stated by the regulations of İzmir Institute of Technology.