

ME 211 Statics and Strength of Materials

2025 – 2026 Fall Semester

Instructor:	Asst. Prof. Dr. Halis KANDAŞ
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Lecture Hours:	Section 1 – Monday 15:30 – 17:20 and Thursday 9:30 – 11:20 Section 2 – Monday 9:30 – 11:20 and Wednesday 15:30 – 17:20
Lecture Location:	Section 1 – B1015 Section 2 – 1025
Course Webpage:	moodle.atilim.edu.tr
Textbook:	Engineering Mechanics: Statics, SI Units Russell C. Hibbeler ISBN-13: 9780137514663 • ISBN-13: 9780134867281
Prerequisites:	PHYS 101
Course Description:	Statics and mechanics of materials; a review of the basic rules and laws of statics, Description: forces, force systems, loading and load effects as well as mechanics of materials including center of gravity, moment of inertia, and the concepts of stresses and strains.
Grading:	Participation 15 % Midterms (2) 50 % Final 35 %

Course Outline:

- Introduction
- Vector Algebra and Force Vectors
- Static Equilibrium of Particles
- Equivalent Systems of Forces
- Equilibrium of Rigid Bodies
- Centroid, Center of Gravity and Moment of Inertia
- Mechanical Properties of Materials
- Stress and Strain
- Axial Loading
- Torsion
- Pure Bending
- Transverse Shear
- Stress Transformation

The instructor may change the syllabus as the course proceeds. If necessary, these changes will be announced in class.