

Foundations of Solid Mechanics

L12: Summary and Discussions

**Department of Civil Engineering
School of Engineering
Aalto University**

Foundations of Solid Mechanics

Syllabus

Week 44

- 2.11 Stress and Strain
- 3.11 Exercise 1
- 4.11 Axial load
- 5.11 Exercise 2

Week 45

- 9.11 Torsion
- 10.11 Exercise 3 Mid-term report questions available
- 11.11 Bending
- 12.11 Exercise 4

Week 46

- 16.11 Shear and combined loading
- 17.11 Exercise 5
- 18.11 Geometric Section Properties
- 19.11 Exercise 6

Week 47

- 23.11 Analysis and Design of Beams
- 24.11 Exercise 7 Mid-term report deadline
- 25.11 Plane-Stress Transformation & Mohr's Circle
- 26.11 Exercise 8

Week 48

- 30.11 Deflection of Beams
 - 1.11 Exercise 9
 - 2.11 Statically Indeterminate Beams
 - 3.11 Exercise 10

Week 49

- 7.12 Buckling
- 8.12 Exercise 11
- 9.12 Summary and discussions
- 10.12 Q & A

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Syllabus

- ◆ Assessment: homework (weekly assignment), mid-term report, and final exam.

Weekly assignment: 25%; Mid-term report: 25%; Final exam: 50%;

Bonus points: (5%) for attendance (both lectures and exercises, you will lose one point for each absence). Minimum point is 0.

Final grade=weekly assignment (25%) + mid-term report (25%) + final exam (50%) + bonus point (5%)

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Final Exam

1. Closed-book exam. Remote exam, as an assignment at MyCourses.
2. Feel free to use calculator.
3. Time: **17:30-20:45**, Thursday, December 16, 2020. 180 mins for the test in the original plan, and 15 mins reserved for submission.
4. Around 5 questions in total.
5. Contents: all contents covered in this course.
6. 50% of final grade.
7. Questions during exam: you may ask through Zoom chat.
8. If you cannot submit through MyCourses, please submit by email to rui.hao@aalto.fi and weiwei.lin@aalto.fi, before the deadline.

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2nd Exam 25.01.22 Tuesday 16.30-19.30

Please contact the teacher in charge for further instructions.

Notes:

- ☐ *If you participate in the 2nd exam, you need to make a registration.*
- ☐ If you participate in the 2nd exam, contact the teacher for further instructions.

*Please participate and provide us
with course feedback. Thanks!*