

## Tárgytematika / Course Description Solid Mechanics 2.

GKNB\_AMTA020

**Tárgyfelelős neve /**

**Teacher's name:** dr. Kupi Gábor

**Félév / Semester:** 2024/25/2

**Beszámolási forma /**

**Assesment:** Folyamatos számonkérés

**Tárgy heti óraszám /**

**Teaching hours(week):** 1/2/2

**Tárgy féléves óraszám /**

**Teaching hours(sem.):** 0/0/0

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### OKTATÁS CÉLJA / AIM OF THE COURSE

The courses in Solid Mechanics aim to provide general basic knowledge about the concepts and methods in Solid Mechanics and develop skills in applying these methods in engineering problems through problem-solving and project tasks. Solid Mechanics 2 focuses on Strength of Materials.

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### TANTÁRGY TARTALMA / DESCRIPTION

The semester covers the following topics:

Axial load

Torsion

Bending

Transverse shear

Combined loading of rods

Deflection of beams

Multiaxial stress and strain

Buckling and other selected topics

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### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Students can reach a maximum of 100 points in the semester.

A maximum of 70 points can be reached from two tests.

A maximum of 30 points can be reached from project tasks.

For a successful semester, the minimum conditions are

to reach at least 40% of the points from each test,

and to reach at least 40 points in the whole semester.

Each missing or unsuccessful test can be repeated once.

At the end of the semester, not satisfying the minimum conditions results in grade fail (1).

When the minimum conditions are satisfied, the grades are determined:

40 – 54 points: pass (2)

55 – 69 points: satisfactory (3)

70 – 84 points: good (4)

85 – 100 points: excellent (5)

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### **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

Hibbeler, R.: Engineering Mechanics: Mechanics of Materials, 9<sup>th</sup> ed., Pearson, 2014

Gross, D. et. al.: Engineering Mechanics 2: Mechanics of Materials, 2<sup>nd</sup> ed., Springer, 2011

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### **AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL**