

# Basics of Statics and Dynamics

BSc  
2024/25, spring semester

(Mon 10.15-12.00, K376 – Tue 12.15-14.00, KM78 – #Fri 12.15-14.00, K376)

Week	Date	Topic
1	Feb 10	a1: Introduction, vector operations, rectilinear motion of a particle
	Feb 11	a2-a3: Kinematics of a particle
2	<b>Feb 17</b>	<b>1st home assignment. Topic: A1. Deadline: 19 Feb</b>
	Feb 17	a3: Kinematics of rigid bodies, Newton's laws
	Feb 18	a4: Kinetics of particles, Work-Energy theorem
	Feb 21	a5: Moment of forces, couple
	<b>Feb 21</b>	<b>2nd home assignment. Topic: A2. Deadline: 24 Feb</b>
3	<b>Feb 24</b>	<b>3rd home assignment. Topic: A3. Deadline: 26 Feb</b>
	Feb 24	a6: Resultant of force systems, centroid of 2D objects
	Feb 25	a7: Resultant of distributed forces
	<b>Feb 28</b>	<b>4th home assignment. Topic: A4. Deadline: 3 Mar</b>
	4	<b>Mar 03</b>
Mar 03		a8: Kinetics of rigid bodies, tip-over analysis
Mar 04		B1: Constraints, reactions of simple structures
Mar 07		B2: Reactions of simple structures
<b>Mar 07</b>		<b>6th home assignment. Topic: A7-A8. Deadline: 10 Mar</b>
5	Mar 10	B3: Statical determinacy, reactions of compound structures
	Mar 11	B4: Gerber girders
6	Mar 17	B5: Reactions of three hinged frames, statical determinacy
	Mar 18	B6: Truss analysis I.
	Mar 21	B7: Truss analysis II.
7	Mar 24	consultation (B)
	<b>Mar 25</b>	<b>TEST 1 (B)</b>
8	Mar 31	C1: Internal forces
	Apr 01	<b>repetition test 1 (B)</b>
	Apr 04	--- ( <i>Vásárhelyi Day</i> )
9	Apr 07	C2: Internal force diagrams, basic cases
	Apr 08	C3: Internal force diagrams of cantilever beams
10	Apr 14	C4: Internal force diagrams of simply supported beams
	Apr 15	C5: Internal force diagrams of Gerber beams
	Apr 18	--- ( <i>Good Friday</i> )
	Apr 21	--- ( <i>Easter Monday</i> )
	Apr 22	--- ( <i>Spring break</i> )
12	Apr 28	C6: Internal force diagrams of frames
	Apr 29	<b>repetition test of home assignments</b>
	May 05	C7: Internal force diagrams of compound frames
12	May 06	Consultation (C)
	May 09	A9: Forces in 3D
	May 12	<b>TEST 2 (C)</b>
	13	May 13
May 19		C8: Internal forces in 3D
14	May 20	<b>repetition test 2 (C)</b>
	May 23	consultation for exam

January 23, 2025

Trung Hoang  
(lecturer)

Flórián Kovács  
(lecturer)