Basics of Statics and Dynamics

BSc

2023/24, spring semester

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

Week	Date	Topic
1	Feb 12	a1: Introduction, vector operations, rectilinear motion of a particle
	Feb 13	a2-a3: Kinematics of a particle
2	**Feb 19**	**1st home assignment. Topic: A1. Deadline: 21 Feb**
	Feb 19	a3: Kinematics of rigid bodies, Newton's laws
	Feb 20	a4: Kinetics of particles, Work-Energy theorem
	Feb 23	a5: Moment of forces, couple
	Feb 23	**2nd home assignment. Topic: A2. Deadline: 26 Feb**
3	**Feb 26**	**3rd home assignment. Topic: A3. Deadline: 28 Feb**
	Feb 26	a6: Resultant of force systems, centroid of 2D objects
	Feb 27	a7: Resultant of distributed forces
	Mar 01	**4th home assignment. Topic: A4. Deadline: 4 Mar**
4	**Mar 04**	**5th home assignment. Topic: A5-A6. Deadline: 6 Mar**
	Mar 04	a8: Kinetics of rigid bodies, tip-over analysis
	Mar 05	B1: Constraints, reactions of simple structures
	Mar 08	B2: Reactions of simple structures
	Mar 08	**6th home assignment. Topic: A7-A8. Deadline: 11 Mar**
5	Mar 11	B3: Statical determinacy, reactions of compond structures
	Mar 12	B4: Gerber girders
6	Mar 18	B5: Reactions of three hinged frames, statical determinacy
	Mar 19	B6: Truss analysis I.
	Mar 22	B7: Truss analysis II.
7	Mar 25	consultation (B)
	Mar 26	**TEST 1 (B)**
	Apr 01	*--- (Easter Monday)*
	Apr 02	*--- (Spring break)*
8	Apr 08	C1: Internal forces
	Apr 09	**repetition test 1 (B)**
	Apr 12	*--- (Vásárhelyi Day)*
9	Apr 15	C2: Internal force diagrams, basic cases
	Apr 16	C3: Internal force diagrams of cantilever beams
10	Apr 22	C4: Internal force diagrams of simply supported beams
	Apr 23	Consultation (C)
	Apr 26	C5: Internal force diagrams of Gerber beams
11	Apr 29	C6: Internal force diagrams of frames
		repetition test of home assignments
	Apr 30	C7: Internal force diagrams of compound frames
12	May 06	Consultation (C)
	May 07	A9: Forces in 3D
	May 10	**TEST 2 (C)**
13	May 03	B8: Structures in 3D
	May 14	C8: Internal forces in 3D
14	**May 21**	**repetition test 2 (C)**
	May 24	consultation for exam

January 26, 2024

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