

MEC-E1010 Dynamics of Rigid Body (Period I, 2023): preliminary schedule (16.8.2023)

Week	Date	Lectures	Exercises	Calculation hours (CH) and demos	Topics of the lecture	
36	4.9.2023	Mon	Lecture 1	Ex 0 & 1 =>	Basic considerations, relative and absolute observations, coordinate systems, rates of change of vectors, EOMs for particle	
	5.9.2023	Tue		CH 0		
	6.9.2023	Wed				
	7.9.2023	Thu	Lecture 2	Ex 0 <=	Demo 0	Spherical coordinate system, rates of change of vectors
	8.9.2023	Fri				
	9.9.2023	Sat				
	10.9.2023	Sun				
37	11.9.2023	Mon	Lecture 3		Kinematics of rigid bodies: body fixed coordinate frame, orientation of a body (Euler angles)	
	12.9.2023	Tue		CH 1		
	13.9.2023	Wed		Ex 2 =>		
	14.9.2023	Thu	Lecture 4	Ex 1 <=	Demo 1	Kinematics of rigid bodies: relative motion, relative motion of rigid bodies
	15.9.2023	Fri				
	16.9.2023	Sat				
	17.9.2023	Sun				
38	18.9.2023	Mon	Lecture 5		Kinetics of rigid bodies: angular momentum, conservation of angular momentum, mass properties	
	19.9.2023	Tue		CH 2		
	20.9.2023	Wed		Ex 3 =>		
	21.9.2023	Thu	Lecture 6 (online)	Ex 2 <=	Demo 2 (online)	Kinetics of rigid bodies: EOMs for rotational motion - examples and special cases for EOMs
	22.9.2023	Fri				
	23.9.2023	Sat				
	24.9.2023	Sun				
39	25.9.2023	Mon	NO LECTURE		CH 3	Extra calculation hour instead of lecture
	26.9.2023	Tue			CH 3	
	27.9.2023	Wed		Ex 4 =>		
	28.9.2023	Thu	Lecture 7	Ex 3 <=	Demo 3	Analytical mechanics
	29.9.2023	Fri				
	30.9.2023	Sat				
	1.10.2023	Sun				
40	2.10.2023	Mon	Lecture 8		Analytical mechanics	
	3.10.2023	Tue		CH 4		
	4.10.2023	Wed		Ex 5 =>		
	5.10.2023	Thu	Lecture 9	Ex 4 <=	Demo 4	Analytical mechanics
	6.10.2023	Fri				
	7.10.2023	Sat				
	8.10.2023	Sun				
41	9.10.2023	Mon	Lecture 10		Review lecture	
	10.10.2023	Tue		CH 5		
	11.10.2023	Wed				
	12.10.2023	Thu		Ex 5 <=	Demo 5	
	13.10.2023	Fri				
	14.10.2023	Sat				
	15.10.2023	Sun				
42	16.10.2023	Mon				
	17.10.2023	Tue				
	18.10.2023	Wed	EXAM			
	19.10.2023	Thu				
	20.10.2023	Fri				
	21.10.2023	Sat				
	22.10.2023	Sun				

Lectures: Mondays 12:15 (lecture hall announced later)
 Thursdays 12:15 (lecture hall announced later)
Calculation hours (CH): Tuesdays 12:15 (lecture hall announced later)
Demo sessions: Thursdays 14:15 (lecture hall announced later)

Exam: Wednesday 18.10. 9-13 (K1, 215 or 216)

"=>" = exercise handed out
 "<=" = deadline for an exercise

There will be 1+5 rounds of exercises with tagged home assignments.