

ME 274 - BASIC MECHANICS I: Assignment Schedule Fall 2023

School of Mechanical Engineering - Purdue University

PERIOD	DATE	TOPIC	READ	HWK	
KINEMATICS					
1	M	8/21	Point Kinematics – Cartesian, Path and Polar/Cylindrical	1.A	H.1.A, H.1.B
2	W	8/23	Point Kinematics – Cartesian, Path and Polar/Cylindrical	1.A	H.1.C, H.1.D
3	F	8/25	Point Kinematics – Cartesian, Path and Polar/Cylindrical	1.A	H.1.E, H.1.F
4	M	8/28	Point Kinematics – Joint Descriptions	1.C	H.1.G, H.1.H
5	W	8/30	Point Kinematics – Relative and Constrained Motion	1.D	H.1.I, H.1.J
6	F	9/1	Planar Kinematics – Rigid Bodies	2.A	H.2.A, H.2.B
	M	9/4	No class due to University holiday		
7	W	9/6	Planar Kinematics – Rigid Bodies	2.A	H.2.C, H.2.D
8	F	9/8	Planar Kinematics – Rigid Bodies	2.A	H.2.E, H.2.F
9	M	9/11	Planar Kinematics – Instant Centers	2.B	H.2.G, H.2.H
10	W	9/13	Planar Kinematics – Summary	2.C	H.2.I, H.2.J
11	F	9/15	Moving Reference Frame Kinematics – 2D	3.A	H.3.A, H.3.B
12	M	9/18	Moving Reference Frame Kinematics – 2D	3.A	H.3.C, H.3.D
13	W	9/20	Moving Reference Frame Kinematics – 3D	3.B	H.3.E, H.3.F
14	F	9/22	Moving Reference Frame Kinematics – 3D	3.B	H.3.G, H.3.H
15	M	9/25	Moving Reference Frame Kinematics – 3D	3.B	H.3.I, H.3.J
	Tu	9/26	Exam 1 Covers Periods 1-12), 8:00 – 9:00 PM. All Sections: LILY 1105		
	W	9/27	No class due to evening exam on Tuesday		
16	F	9/29	Particle Kinetics – Newton's Second Law	4.A	H.4.A, H.4.B
KINETICS					
17	M	10/2	Particle Kinetics – Newton's Second Law	4.A	H.4.C, H.4.D
18	W	10/4	Particle Kinetics – Newton's Second Law	4.A	H.4.E, H.4.F
19	F	10/6	Particle Kinetics – Work/Energy	4.B	H.4.G, H.4.H
	M	10/9	No class due to University holiday		
20	W	10/11	Particle Kinetics – Work/Energy	4.B	H.4.I, H.4.J
21	F	10/13	Particle Kinetics – Linear Impulse/Momentum	4.C	H.4.K, H.4.L
22	M	10/16	Particle Kinetics – Linear Impulse/Momentum	4.C	H.4.M, H.4.N
23	W	10/18	Particle Kinetics – Central Impact	4.C	H.4.O, H.4.P
24	F	10/20	Particle Kinetics – Angular Impulse/Momentum	4.D	H.4.Q, H.4.R
25	M	10/23	Particle Kinetics – Angular Impulse/Momentum	4.D	H.4.S, H.4.T
26	W	10/25	Particle Kinetics – Summary	4.A-D	H.4.U, H.4.V
27	F	10/27	Planar Kinetics of Rigid Bodies – Newton/Euler Equations	5.A	H.5.A, H.5.B
28	M	10/30	Planar Kinetics of Rigid Bodies – Newton/Euler Equations	5.A	H.5.C, H.5.D
29	W	11/1	Planar Kinetics of Rigid Bodies – Newton/Euler Equations	5.A	H.5.E, H.5.F
30	F	11/3	Planar Kinetics of Rigid Bodies – Work/Energy	5.B	H.5.G, H.5.H
31	M	11/6	Planar Kinetics of Rigid Bodies – Work/Energy	5.B	H.5.I, H.5.J
32	W	11/8	Planar Kinetics of Rigid Bodies – Impulse/Momentum	5.C	H.5.K, H.5.L
	Th	11/9	Exam 2 (Covers Period 13-29), 8:00 – 9:00 PM S002-Davies: LILY G126. S001-Sotelo: SMTH 108		
	F	11/10	No class due to evening exam		
33	M	11/13	Planar Kinetics of Rigid Bodies – Impulse/Momentum	5.C	H.5.M, H.5.N
34	W	11/14	Planar Kinetics of Rigid Bodies – Summary	5.A-D	H.5.O, H.5.P
VIBRATIONS					
35	F	11/17	Vibrations – Equations of Motion	6.A	H.6.A, H.6.B
36	M	11/20	Vibrations – Free, Undamped Response	6.B	H.6.C, H.6.D
	W	11/22	No class due to University holiday		
	F	11/24	No class due to University holiday		
37	M	11/27	Vibrations – Free, Damped Response	6.B	H.6.E, H.6.F
38	W	11/29	Vibrations – Free, Damped Response	6.B	H.6.G, H.6.H
39	F	12/1	Vibrations – Harmonic Excitation	6.C	H.6.I*, H.6.J*
40	M	12/4	Vibrations – Harmonic Excitation	6.C	H.6.K**, H.6.L**
41	W	12/6	Vibrations – Harmonic Excitation	6.C	H.6.M**, H.6.N**
42	F	12/8	Course Overview		

Homeworks are due on Gradescope at 11:59pm of the day of the next regular class period.

*** Due at 11:59PM on Sunday, 12/3/2023**

**** Will not be collected**