

Assignment Schedule – Fall 2021: *Updated 9/19*

ME 274 - BASIC MECHANICS II

School of Mechanical Engineering - Purdue University

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

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