ENG ME 302 Engineering Mechanics II **Spring 2024**

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Text: James H. Williams, Jr., *Fundamentals of Applied Dynamics,*
MIT Press, 2019, ISBN 9780262039710.

Week Beginning	Topics	Reading
1/15	Particle kinematics	Chs. 1, 2; Secs. 3–1, 3–2
1/22	Moving reference frames	Secs. 3–3 – 3.5
1/29	"	"
2/5	Momentum principles for particles	Secs. 4–1 – 4–4
2/12	"	"
2/19	Work and energy for particles	Secs. 5–1 – 5–3
2/26	Lagrange equations for particles	Secs. 5–4 – 5–7
3/4	"	"
3/11	Spring Break	
3/18	Momentum principles for rigid bodies	6–1 – 6–2
3/25	Dynamic properties of rigid bodies	6–1 – 6–3
4/1	Rigid body dynamics	6–4
4/8	Lagrange equations for rigid bodies	6–5 – 6–6
4/13	"	"
4/22	Mechanical vibrations	Secs. 8–1, 8–3.1 – 8–3.3
4/29	"	"

Grading Two tests, each worth 25% of final grade;
Final exam, worth 25% of final grade;
Homework assignments, together worth 10% of final grade;
Laboratory project, worth 15% of final grade.