

SP211 – General Physics I
Course Outline – Fall 2006

Text: Physics for Scientists and Engineers, 6th Edition, by R. A. Serway and J. W. Jewett, Jr.

Ver.: 9 Aug 2006	MWF	TuTh	Ch	Sects	Pages	Topic	Laboratory
Week 1	M	Tu				Administration, Diagnostic Tests	Introduction
(21 – 25 Aug)	W	Tu/Th	1	1,4-7	9	Measurement and Estimation	to
	F	Th	2	1-4	12	Position, Velocity and Acceleration	Laboratory
Week 2	M	Tu	2	5-7	12	1-D Motion with Constant Acceleration	1D
(28 Aug – 1 Sep)	W	Tu/Th	3	1-4	11	Vectors	Kinematics
	F	Th	4	1-3	13	2-D Kinematics and Projectile Motion	via Graphs
Week 3	M					<i>Labor Day: No classes.</i>	Open
(4 – 8 Sep)	Tu*		4	4-5	5	Kinematics of Circular Motion	
	W	Tu	5	1-4	7	Force, Mass and Acceleration	
	F	Th	5	5-6	3	Weight and Interactions	
Week 4	M	Tu	5	7	9	Applications of Newton's Laws	2D
(11 – 15 Sep)	W	Tu/Th	5	8	7	Friction	Kinematics
	F	Th	6	1-2	8	Dynamics of Circular Motion	
Week 5	M	Tu	6	4	5	Motion with Resistive Forces	Newton's
(18 – 22 Sep)	W	Tu/Th	7	1-4	11	Work	Laws
	F	Th				Demonstration Lecture: Newton's Laws	
Week 6	M	Tu				<i>Time Reserved for Exam. Actual time TBD.</i>	Open
(25 – 29 Sep)	W	Tu/Th	7	5-6	6	Kinetic Energy; Conservation of Energy	
	F	Th	7	7-8	6	Situations involving Friction, Power	
Week 7	M	Tu	8	1-2	10	Potential Energy; Mechanical Energy	Uniform
(2 – 6 Oct)	Tu	Tu				<i>6-week grades due today; MAPRs Friday</i>	Circular
	W	Tu/Th	8	3-5	8	Conservative and Nonconservative Forces	Motion
	F	Th	9	1-2	8	Momentum, Conservation and Impulse	
Week 8	M	Tu				<i>Columbus Day: No classes.</i>	Work
(9 – 13 Oct)	W	Tu/Th	9	3	7	Collisions in One Dimension	and
	F	Th	9	4	3	Collisions in Two Dimensions	Energy
Week 9	M	Tu	9	5-6	7	Center of Mass	Momentum
(16 – 20 Oct)	W	Tu/Th	10	1-3	7	Rotational Kinematics	and
	F	Th	10	4-7	8	Torque and Angular Acceleration	1D Collisions
Week 10	M	Tu	11	1-3	8	Angular Momentum	2D Collisions
(23 – 27 Oct)	W	Tu/Th	11	4-5	6	Conservation of Angular Momentum	and
	F	Th				Demonstration Lecture: Energy and Momentum	Center of Mass
Week 11	M	Tu				<i>Time Reserved for Exam. Actual time TBD.</i>	Open
(30 Oct – 3 Nov)	W	Tu/Th	13	1-4	10	Gravitation; Kepler's Laws	
	F	Th	13	5-7	9	Motion of Planets and Satellites	
Week 12	M	Tu	14	1-3	6	Pressure	Rotational
(6 – 10 Nov)	Tu	Tu				<i>12-week grades due today; MAPRs Thursday</i>	Kinematics
	W	Tu/Th	14	4	4	Buoyancy	and
	F					<i>Veterans' Day(Observed): No classes.</i>	Dynamics
Week 13	M	Tu	14	5-7	6	Fluid Dynamics	Simple
(13 – 17 Nov)	W	Tu/Th	15	1-3	12	Simple Harmonic Motion; Energy	Harmonic
	F	Th	15	5-7	6	Pendulums, Damped and Forced Oscillations	Motion
Week 14	M	Tu	16	1-2	9	Wave Motion; Sinusoidal Waves	Open
(20 – 24 Nov)	W	Tu/Th	16	3-5	7	Traveling Waves on Strings	
	Th	Th				<i>Thanksgiving Day: No classes.</i>	
	F					<i>Thanksgiving Leave: No classes.</i>	
Week 15	M	Tu	17	1-2,4	9	Sound Waves; Doppler Effect	Standing
(27 Nov – 1 Dec)	W	Tu/Th	18	1-3	14	Superposition; Standing Waves on Strings	Waves
	F	Th				Demonstration Lecture: Waves and Sound	on a String
Week 16	M	Tu	18	4-7	8	Standing Waves in Air Columns; Beats	Open
(4 – 8 Dec)	W**	Tu/Th				Review or Catch Up	
	Th***	Th***				Review or Catch Up	
	F					<i>Review and Study Day: No classes.</i>	

*Classes follow a *Monday* schedule on Tuesday 5 September.

**Classes follow a *Friday* schedule on Wednesday 6 December.

***Thursday 7 December is the last day of classes for the fall semester.

Final Examinations begin Saturday 9 December and end Saturday 16 December. Course grades due Thursday 21 December.