

SP211 – General Physics I
Course Outline – Fall 2004
Text: Physics, by Douglas C. Giancoli

Version 08/02/04	MWF	TuTh	Ch	Secs	Topic	Lab
Week 1	M	Tu			Administration, Diagnostic Exams, etc.	Introduction to
(23 – 27 Aug)	W	Tu/Th	1	1-6	Measurement, Units, Estimating	Laboratory
	F	Th	2	1-4	1D Velocity and Acceleration	
Week 2	M	Tu	2	5-7	1D Constant Acceleration	1D Kinematics
(30 Aug – 3 Sep)	W	Tu/Th	3	1-5	Vectors	via Graphs
	F	Th	3	6-8	Projectile Motion	
Week 3	M				<i>Labor Day: No classes.</i>	Open
(6 – 10 Sep)	Tu				<i>Classes meet on a Thursday schedule today.</i>	
	W	Tu	3	9-10	Circular Motion, Relative Velocity	
	F	Th	4	1-5	Forces and Newton's Laws	
Week 4	M	Tu	4	6	Weight, Normal Force and Tension	2D Kinematics
(13 – 17 Sep)	W	Tu/Th	4	7-8	Free-Body Diagrams	
	F	Th	5	1	Friction	
Week 5	M	Tu	5	2-4	Circular Motion (Dynamics)	Newton's Laws
(20 – 24 Sep)	W	Tu/Th	5	5	Velocity-Dependent Forces	
	F	Th			<i>Time set aside for exam – actual date TBA.</i>	
Week 6	M	Tu	6	1-3	Newton's Law of Universal Gravitation	Open
(27 Sep – 1 Oct)	W	Tu/Th	6	4-5	Kepler's Laws and Orbital Motion	
	Th	Th			<i>Football @ USAFA: Early schedule.</i>	
	F				<i>No classes.</i>	
Week 7	M	Tu	7	1-3	Work	Uniform Circular
(4 – 8 Oct)	W	Tu/Th	7	4	Kinetic Energy	Motion
	Th	Th			<i>Six-week grades are due today.</i>	
	F	Th	8	1-2	Potential Energy	
Week 8	M	Tu	8	3-6	Conservation of Mechanical Energy	Work and Energy
(11 – 15 Oct)	W	Tu/Th	8	7-8	Escape Velocity, Power	
	F	Th	9	1-2	Linear Momentum	
Week 9	M	Tu	9	3-4	Collisions and Impulse	Momentum and
(18 – 22 Oct)	W	Tu/Th	9	5	Elastic Collisions	1D Collisions
	F	Th	9	6-8	Inelastic Collisions, Center of Mass	
Week 10	M	Tu	9	9-10	Rockets	2D Collisions and
(25 – 29 Oct)	W	Tu/Th	10	1-3	Rotational Kinematics	Center of Mass
	F	Th			<i>Time set aside for exam – actual date TBA.</i>	
Week 11	M	Tu	10	4-5	Torque	Rotational
(1 – 5 Nov)	W	Tu/Th	10	6-7	Rotational Dynamics	Kinematics and
	F	Th	10	9	Conservation of Angular Momentum	Dynamics
Week 12	M	Tu	13	1-4	Pressure	Open
(8 – 12 Nov)	Tu	Tu			<i>Twelve-week grades are due today.</i>	
	W	Tu/Th	13	6	Buoyancy and Archimedes' Principle	
	Th	Th			<i>Veterans' Day: No classes.</i>	
	F	Th	13	7-9	Bernoulli's Equation	
Week 13	M	Tu	14	1-3,5	Oscillations	Simple Harmonic
(15 – 19 Nov)	W	Tu/Th	14	7,8	Damped and Forced Oscillations	Motion
	F	Th	15	1-3	Waves	
Week 14	M	Tu	15	4,6	Principle of Superposition	Open
(22 – 26 Nov)	W	Tu/Th	15	7-9	Reflection and Transmission, Resonance	
	Th	Th			<i>Thanksgiving Day: No classes.</i>	
	F				<i>Thanksgiving Leave: No classes.</i>	
Week 15	M	Tu	16	1,3,4	Sound, Guitars, Organ Pipes	Standing Waves
(29 Nov – 3 Dec)	W	Tu/Th	16	6,7	Beats, Doppler Effect	on a String
	F	Th	16	8	Shock Waves and the Sonic Boom	
Week 16	M	Tu			<i>Time set aside for exam – actual date TBA.</i>	Open
(6 – 10 Dec)	Tu	Tu			Review.	
	W	Tu/Th			<i>Classes meet on a Friday schedule today.</i>	
	Th	Th			<i>Review. Last day of classes.</i>	
	F				<i>Review and Study Day: No classes.</i>	