WINTHROP UNIVERSITY
PHYS 211 Course Syllabus
Department of Chemistry, Physics, & Geology

DATE	TOPIC	CHAPTER	ASSIGNMENTS
8-25 W	Introductions, syllabus, Math test, Significant figures, Units, standards, SI system	1.1, 1.3,1.4	**Math &Physics Quiz**
8-27 F	**Recitation**: **problems solving** Converting Units, order of magnitude, Reference frames	1.5-1.6 and 2.1	
8-30 M	Displacement, velocity, acceleration	2.2, 2.3,2.4	
9-1 W	Motion at constant acceleration, Free Fall	2.5-2.7	HW#1
9-3 F	**Recitation**: **problems solving** Variable acceleration, Vectors and Scalars-Vector Addition -Graphical	2.8,3.1-3.3	Quiz 1
9-8 W	Units Vectors, Vector Kinematics	3.3-3.6	HW#2
9-10 F	**Recitation**: **problems solving** Projectile Motion, relative velocity	3.7-3.9	Quiz 2
9-13 M	Force & Newton's 1st Law, Mass	4.1-4.3	
9-15 W	Newton's 2nd Law, Newton's 3rd Law, Weight	4.4-4.6	HW#3
9-17 F	**Recitation**: **problems solving** Free body diagrams –solving problems	4.7-4.8	Quiz 3
9-20 M	Applications of Newton's Law-Friction-Uniform Circular Motion	5.1-5.2	
9-22 W	Dynamics of uniform Circular Motion, Highways banked ,non-uniform Circular Motion	5.3-5.5	**No Homework**
9-24 F	**Exam 1**	**Chap1-5**	**No Quiz**
9-27M	Newton's law of universal Gravitation, vector form, Gravity near earth	6.1-6.3	
9-29 W	Satellites and weightlessness, Kepler laws, type of forces in Nature	6.4,6-5,6.7	HW#4
10-1 F	**Recitation**: **problems solving** Work done by a constant Force, scalar product of two vectors	7.1-1.2	Quiz 4
10-4 M	Work by Varying Force, Kinetic Energy	7.3,7.4	
10-6 W	Work Energy Principle, Conservative and non-conservative Forces	7.4 ,8.1	HW#5
10-8 F	**Recitation**: **problems solving** Potential Energy, Mechanical Energy and its conservation	8.2,8.3	Quiz 5
10-11M	Problem solving using conservational mechanical energy, conservation of energy	8.4,8.5	
10-13W	Energy Conservation with dissipative Forces	8.6	HW#6
10-15 F	Gravitational Potential Energy and Escape Velocity, Power	8.7, 8.8	Quiz 6
10-20 W	Momentum and its relation to Force, Conservation of Momentum. Collisions and Impulse, Conservation of	9.1-9.4	HW#7

	Energy		
10-22 F	**Recitation**: **problems solving** Elastic Collisions in 1 Dimension, Inelastic Collisions	9.5,9.6	**No Quiz**
10-25 M	**Exam 2**	**Chap 6-9**	
10-27 W	Collisions in 2-3 D, Center of Mass (CM)	9.7,9.8	**No Homework**
10-29 F	**Recitation**: **problems solving** CM and Translational Motion, Rotational Motion (Angular Quantities)	9.9, 10.1	Quiz 7
11-1 M	Vector Nature of Angular Quantities, Constant Angular Acceleration, Torque	10.2 - 10.4	
11-3 W	Torque and rotational Inertia, Solving Problems, Moment of Inertia	10.5-10.7	HW#8
11-5 F	**Recitation**: **problems solving** Rotational Kinetic and Translational Kinetic Energy	10.8,10.9	Quiz 8
11-8 M	Angular Momentum, Cross product, Torque as a vector	11.1,11.2	
11-10 W	Angular Momentum of a particle, Angular Momentum and Torque of System of particles, and for a rigid object	11.3-11.5	HW#9
11-12 F	**Recitation**: **problems solving** conservation of Angular Momentum, Oscillations of a spring	11.6-14.1	Quiz 9
11-15 M	SHM, Energy of SHO, SHM related to circular Motion, simple pendulum,	14.2-14.4	
11-17 W	Physical pendulum, damped harmonic Motion Forced Oscillations,	14.5-14.8	**No Homework**
11-19 F	**Recitation**: **problems solving** Wave motion: transverse and longitudinal wave	15.1-15.3	**No Quiz**
11-22 M	**Exam 3**	**Chap.9-14**	
11-24 W-11-26 F	**Thanksgiving Break - no classes**		
11-29 M	The principle of superposition, Reflection and transmission, Interference. Standing waves, resonance, refraction	15.6-15.11	
12-1 W	Characteristics of Sound, intensity of sound, sources of sound	16.1-16.5	HW#10
12-3 F	Interference of sound waves, Doppler effect, Applications	16.6-16.8	**No Quiz**
12-6 M	**Lab exam**		
12-9	**Final Exam 8:00 am**		