Tentative Schedule

	Monday		**Wednesday**		**Friday**	
	*Note: the reading should be completed **before** the day indicated on the schedule.*					
Week 1	Jan 12		Jan 14		Jan 16	
	Class cancelled		Class cancelled		Class cancelled	
Week 2			Jan 21	Lecture 1	Jan 23	Leture 2
Topics: Newton's laws, conservation of momentum			Read Taylor 1.1-1.4		Read Taylor 1.4-1.6	
					Activity 1	
Week 3	Jan 26	Leture 3	Jan 28	Leture 4	Jan 30	Leture 5
Topics: Cartesian vs. polar coordinates, linear air resistance, trajectory in systems with linear air resistance	Read Taylor 1.6-1.7		Read Taylor 2.1-2.2	**Quiz 1**	Read Taylor 2.3	**HW 1 due**
				Covers 1.1-2.2	**Activity 2**	Covers Taylor Ch. 1-2
Week 4	Feb 2	Leture 6	Feb 4	Leture 7	Feb 6	Leture 8
Topics: quadratic air resistance, charge in a magnetic field, complex exponentials	Read Taylor 2.4		Read Taylor 2.5	**Quiz 2**	Read Taylor 2.6-2.7	**HW 2 due**
				Covers 2.1-2.5	**Activity 3**	Covers Taylor Ch. 2-3
Week 5	Feb 9	Leture 9	Feb 11	Leture 10	Feb 13	Leture 11
Topics: Conservation of momentum, rockets, center of mass, angular momentum	Read Taylor 3.1-3.3		Read Taylor 3.4	**Quiz 3**	Read Taylor 3.5	**HW 3 due**
				Covers 2.6-3.4	**Activity 4**	Covers Taylor Ch. 2-3
Week 6	Feb 16	Leture 12	Feb 18	Leture 13	Feb 20	Leture 14
Topics: kinetic energy and work, potential energy and conservative forces	Read Taylor 4.1-4.2		Read Taylor 4.2	**Quiz 4**	Read Taylor 4.3-4.4	
		MIDTERM 1 **Tuesday, February 17** **8:30-10:00pm** in **NPB 1002** Covers Taylor Ch. 1-3		Covers Taylor 3.5-4.2	**Activity 5**	
Week 7	Feb 23	Leture 15	Feb 25	Leture 16	Feb 27	Leture 17
Topics: potential energy and force, energy for 1D systems, Curvilinear 1D systems	Read Taylor 4.5-4.6	**HW 4 due**	Read Taylor 4.7	**Quiz 5**	Read Taylor 4.8	**HW 5 due**
		Covers Taylor Ch. 3-4		Covers 4.3-4.7	**Activity 6**	Covers Taylor Ch. 4-5
Week 8	Mar 2	Leture 18	Mar 4	Leture 19	Mar 6	Leture 20
Topics: Central forces, energies of interactions	Read Taylor 4.9		Read Taylor 4.10	**Quiz 6**	Read Taylor 5.1-5.2	**HW 6 due**
				Covers 4.8-4.10	**Activity 7**	Covers Taylor Ch. 4-5
Week 9	Mar 9	Leture 21	Mar 11	Leture 22	Mar 13	Leture 23
Topics: Hooke's law, simple harmonic motion, 2D oscillators, Damped oscillators	Read Taylor 5.3-5.4		Read Taylor 5.5	**Quiz 7**	Read Taylor 5.6	**HW 7 due**
				Covers 5.1-5.5	**Activity 8**	Covers Taylor Ch. 5-6
	Spring Break (March 16-20)					
Week 10	Mar 23	Leture 24	Mar 25	Leture 25	Mar 27	Leture 26
Topics: Damped & driven oscillators, resonance, Fourier series, Parseval's Theorem	Read Taylor 5.8		Read Taylor 5.9	**Quiz 8**	Read Taylor 6.1-6.3	**HW 8 due**
				Covers 5.6-5.9	**Activity 9**	Covers Taylor Ch. 6-7
Week 11	Mar 30	Leture 27	Apr 1	Leture 28	Apr 3	Leture 29
Topics: Calculus of variations, Lagrange equations	Read Taylor 6.3		Read Taylor 6.4	**Quiz 9**	Read Taylor 7.1	
	MIDTERM 2 **Monday, March 30** **8:30-10:00pm** in **NPB 1002** Covers Taylor Ch. 4-5			Covers 6.1-6.4	**Activity 10**	
Week 12	Apr 6	Leture 30	Apr 8	Leture 31	Apr 10	Leture 32
Topics: Lagrange equations with	Read Taylor 7.2-7.3	**HW 9 due**	Read Taylor 7.4	**Quiz 10**	Read Taylor 7.5	**HW 10 due**

	Monday		**Wednesday**		**Friday**	
constraints		Covers Taylor Ch. 7		Covers 7.1-7.4	**Activity 11**	Covers Taylor Ch. 7
Week 13	Apr 13	Leture 33	Apr 15	Leture 34	Apr 17	Leture 35
Topics: Examples of Lagrange equations, Conservation Laws, Magnetic Forces	Read Taylor 7.5		Read Taylor 7.6-7.8	**Quiz 11**	Read Taylor 7.9	**HW 11 due**
				Covers 7.5-7.8	**Activity 12**	Covers Taylor Ch. 7
Week 14	Apr 20	Leture 36	Apr 22	Leture 37		
Topics: Lagrange multipliers	Read Taylor 7.10		Review			
	Final Exam: Thursday, April 30 at 10am-12pm Covers Taylor Ch. 1-7					