

Tentative Schedule

	Monday		Wednesday		Friday	
	<i>Note: the reading should be completed <b>before</b> the day indicated on the schedule.</i>					
<b>Week 1</b>	Jan 12		Jan 14		Jan 16	
	Class cancelled		Class cancelled		Class cancelled	
<b>Week 2</b>			Jan 21	Lecture 1	Jan 23	Lecture 2
Topics: Newton's laws, conservation of momentum			Read Taylor 1.1-1.4		Read Taylor 1.4-1.6	
					<b>Activity 1</b>	
<b>Week 3</b>	Jan 26	Lecture 3	Jan 28	Lecture 4	Jan 30	Lecture 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	<b>Quiz 1</b>	Read Taylor 2.3	
				Covers 1.1-2.2	<b>Activity 2</b>	
<b>Week 4</b>	Feb 2	Lecture 6	Feb 4	Lecture 7	Feb 6	Lecture 8
Topics: quadratic air resistance, charge in a magnetic field, complex exponentials	Read Taylor 2.4	<b>HW 1 due</b>	Read Taylor 2.5-2.6	<b>Quiz 2</b>	Read Taylor 2.7-3.3	<b>HW 2 due</b>
		Covers Taylor Ch. 1-2		Covers 2.1-2.6	<b>Activity 3</b>	Covers Taylor Ch. 2-3
<b>Week 5</b>	Feb 9	Lecture 9	Feb 11	Lecture 10	Feb 13	Lecture 11
Topics: Conservation of momentum, rockets, center of mass, angular momentum	Read Taylor 3.4		Read Taylor 3.5-4.2	<b>Quiz 3</b>	Read Taylor 4.2	<b>HW 3 due</b>
				Covers 2.7-4.2	<b>Activity 4</b>	Covers Taylor Ch. 3
<b>Week 6</b>	Feb 16	Lecture 12	Feb 18	Lecture 13	Feb 20	Lecture 14
Topics: kinetic energy and work, potential energy and conservative forces	Read Taylor 4.3-4.4		Read Taylor 4.5-4.6	<b>Quiz 4</b>	Read Taylor 4.7	
		<b>MIDTERM 1</b> <b>Tuesday, February 17</b> <b>8:30-10:00pm in NPB 1002</b> Covers Taylor Ch. 1-4.2		Covers Taylor 4.3-4.6	<b>Activity 5</b>	
<b>Week 7</b>	Feb 23	Lecture 15	Feb 25	Lecture 16	Feb 27	Lecture 17
Topics: potential energy and force, energy for 1D systems, Curvilinear 1D systems	Read Taylor 4.8	<b>HW 4 due</b>	Read Taylor 4.8	<b>Quiz 5</b>	Read Taylor 4.9	<b>HW 5 due</b>
		Covers Taylor Ch. 3-4		Covers 4.7-4.8	<b>Activity 6</b>	Covers Taylor Ch. 4-5
<b>Week 8</b>	Mar 2	Lecture 18	Mar 4	Lecture 19	Mar 6	Lecture 20
Topics: Central forces, energies of interactions	Read Taylor 4.10		Read Taylor 5.1-5.2	<b>Quiz 6</b>	Read Taylor 5.3-5.4	<b>HW 6 due</b>
				Covers 4.9-5.2	<b>Activity 7</b>	Covers Taylor Ch. 4-5
<b>Week 9</b>	Mar 9	Lecture 21	Mar 11	Lecture 22	Mar 13	Lecture 23
Topics: Hooke's law, simple harmonic motion, 2D oscillators, Damped oscillators	Read Taylor 5.5		Read Taylor 5.6	<b>Quiz 7</b>	Read Taylor 5.7-5.8	<b>HW 7 due</b>
				Covers 5.3-5.6	<b>Activity 8</b>	Covers Taylor Ch. 5-6

*Spring Break (March 16-20)*

<b>Week 10</b>	Mar 23	Lecture 24	Mar 25	Lecture 25	Mar 27	Lecture 26
Topics: Damped & driven oscillators, resonance, Fourier series, Parseval's Theorem	Read Taylor 5.9		Read Taylor 6.1-6.3	<b>Quiz 8</b>	Read Taylor 6.3	<b>HW 8 due</b>
				Covers 5.7-6.3	<b>Activity 9</b>	Covers Taylor Ch. 6-7
<b>Week 11</b>	Mar 30	Lecture 27	Apr 1	Lecture 28	Apr 3	Lecture 29
Topics: Calculus of variations, Lagrange equations	Read Taylor 6.4		Read Taylor 7.1	<b>Quiz 9</b>	Read Taylor 7.2	
	<b>MIDTERM 2</b> <b>Monday, March 30</b> <b>8:30-10:00pm in NPB 1002</b> Covers Taylor Ch. 4-6.3			Covers 6.4-7.1	<b>Activity 10</b>	
<b>Week 12</b>	Apr 6	Lecture 30	Apr 8	Lecture 31	Apr 10	Lecture 32
Topics: Lagrange equations with	Read Taylor 7.3-7.4	<b>HW 9 due</b>	Read Taylor 7.5	<b>Quiz 10</b>	Read Taylor 7.5	<b>HW 10 due</b>

	Monday		Wednesday		Friday	
constraints		Covers Taylor Ch. 7		Covers 7.2-7.5	<b>Activity 11</b>	Covers Taylor Ch. 7
<b>Week 13</b>	Apr 13	Lecture 33	Apr 15	Lecture 34	Apr 17	Lecture 35
Topics: Examples of Lagrange equations, Conservation Laws, Magnetic Forces	Read Taylor 7.6		Read Taylor 7.7-7.8	<b>Quiz 11</b>	Read Taylor 7.9	<b>HW 11 due</b>
<b>Week 14</b>	Apr 20	Lecture 36	Apr 22	Lecture 37	<b>Activity 12</b>	Covers Taylor Ch. 7
Topics: Lagrange multipliers	Read Taylor 7.10		Review			
	<b>Final Exam: Thursday, April 30 at 10am-12pm</b> <b>Covers Taylor Ch. 1-7</b>					