

Prof. Todd Holden

Office: 2157(b) Ingersoll

Hours: by appointment (e-mail works best)

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Mon, Wed, Thurs 10:50-11:40 Rm. 2143N

Workshop: TBA (Thurs 11:50-12:40?) Rm. 2143N

Lab: Wed 12:15-2:05 Rm. 2408N

Recitation: Wed 2:15-3:05 Rm. 3143N

Phone: 718-951-5000 x2855

Texts: Physics for Scientists and Engineers, Serway & Jewett, Sixth Edition (Thomson/Brooks/Cole, 2004)  
Laboratory Manual Physics 1 and 1.5, Brooklyn College (available in Physics Dept., 3438N)

Exams: There will be 3 lecture exams and a final exam. **No makeup exams will be given.** Absences from exams must be excused by the lecturer or a grade of zero will be assigned. Generally, a doctor's note is required for an absence due to illness. The final exam covers the entire semester, emphasizing material not covered in the lecture exams. **Any cheating on an exam will result in a zero for the exam.**

Quizzes: Twice a week, there will a pre-class reading quiz (done online before class – see below) and an in-class quiz (a few questions each). You receive 0 points for questions you don't respond to, 1 point for giving an incorrect response, and 2 points for giving a correct response. The lowest 5 quiz scores will be dropped.

Grades: Final grades will be based on Lecture Exams (30%), Final Exam (25%), Laboratory (15%), Homework (10%), and in-class and pre-class quizzes (20%)

Laboratory: To pass the course, you must receive a passing grade in the laboratory. Experiments missed must be made up within a week, after which the equipment may no longer be available.

Important Dates: Friday, February 17 is the last day to drop a course without a grade  
Friday, April 7 is the last day to apply for a withdrawal ("W" grade)

Lecture Schedule: (Textbook chapters covered in the lecture are indicated. Note: sections 6.4, 6.5, 7.9, 11.5, 11.6, 15.6, 15.7, 17.3, 17.5, 17.6, 18.6, 18.8, 21.4, 21.7, 22.6, 22.7, and 22.8 will not be covered.)

Week	Monday	Wednesday	Thursday	Lab
Jan. 23	--	--	Ch. 1	
Jan. 30	Ch. 2	Ch. 2	Ch. 3	Introduction to Motion
Feb. 6	Ch. 4	Ch. 4	Ch. 5	Changing Motion
Feb. 13	<b>BC Closed</b>	Ch. 5	Ch. 6	Equilibrium of Coplanar Forces – p. 18
Feb. 20	Ch. 6 (Tuesday)	Ch. 7	Ch. 7	Motion with Constant Acceleration – p. 21
Feb. 27	Ch. 8	<b>Exam 1</b>	Ch. 8	Force and Motion
Mar. 6	Ch. 9	Ch. 9	Ch. 10	One Dimensional Collisions – p. 30
Mar. 13	Ch. 10	Ch. 11	Ch. 11	Measurement of Angular Accel. – p. 33
Mar. 20	Ch. 12	<b>Exam 2</b>	Ch. 12	Equilibrium of Moments – p. 39
Mar. 27	Ch. 13	Ch. 13	Ch. 14	Conservation of Angular Momentum – p.36
Apr. 3	Ch. 14	Ch. 15	Ch. 15	Archimedes' Principle – p. 50
Apr. 10	Ch. 16	<b>Spring Recess</b>		
Apr. 17	<b>Spring Recess</b>			
Apr. 24	Ch. 16	Ch. 17	Ch. 18	The Mechanical Equivalent of Heat – p. 53
May 1	Ch. 19	<b>Exam 3</b>	Ch. 20	Simple Harmonic Motion – p. 42
May 8	Ch. 20	Ch. 21	Ch. 21	Standing Waves on a String – p. 48
May 15	Ch. 22	Ch. 22		Review

**Final Thursday May 25 10:30-12:30**

Homework is not only submitted, but also very important for the tests. Underlined homeworks will be collected and graded as follows: 1 point if it appears you have understood the question but can't go further, 2 points for making a reasonable effort, 3 points if the solution is in the right basic direction, and 4 points if everything is correct. Late homework will get half credit. **Working on homework in groups is encouraged; however, just copying solutions usually results in very low test scores.** The tests will typically consist of 4 problems: 1 from the collected homework (numbers changed), 1 from the non-collected homework, and 2 which are similar to the homework. About 30% of the test will be similar to the conceptual questions.

Ch	Questions	Problems	Due
1	4, 5, <u>8</u> , 11	<u>2</u> , <u>3</u> , <u>17</u> , <u>24</u> , <u>29</u> , <u>34</u> , <u>36</u> , <u>41</u> , <u>61</u> , <u>65</u> , <u>67</u>	2/8
2	6, <u>8</u> , <u>10</u> , <u>15</u> , <u>17</u>	<u>2</u> , <u>3</u> , <u>10</u> , <u>11</u> , <u>12</u> , <u>16</u> , <u>19</u> , <u>26</u> , <u>31</u> , <u>38</u> , <u>43</u> , <u>46</u> , <u>47</u> , <u>50</u> , <u>52</u> , <u>54</u> , <u>58</u> , <u>63</u> , <u>68</u> , <u>70</u>	2/8
3	<u>5</u> , <u>8</u> , <u>10</u> , <u>13</u>	<u>2</u> , <u>7</u> , <u>11</u> , <u>12</u> , <u>16</u> , <u>18</u> , <u>24</u> , <u>26</u> , <u>32</u> , <u>36</u> , <u>40</u> , <u>44</u> , <u>52</u> , <u>54</u> , <u>64</u> , <u>67</u>	2/15
4	<u>4</u> , <u>7</u> , <u>9</u> , <u>16</u> , <u>20</u> , <u>26</u> , <u>28</u>	<u>2</u> , <u>7</u> , <u>10</u> , <u>13</u> , <u>16</u> , <u>24</u> , <u>25</u> , <u>27</u> , <u>32</u> , <u>39</u> , <u>41</u> , <u>45</u> , <u>47</u> , <u>51</u> , <u>52</u> , <u>54</u> , <u>55</u> , <u>57</u> , <u>65</u> , <u>69</u> , <u>71</u>	2/15
5	<u>1</u> , <u>2</u> , <u>4</u> , <u>16</u> , <u>17</u> , <u>19</u> , <u>26</u>	<u>2</u> , <u>6</u> , <u>10</u> , <u>13</u> , <u>17</u> , <u>20</u> , <u>21</u> , <u>24</u> , <u>26</u> , <u>29</u> , <u>35</u> , <u>38</u> , <u>40</u> , <u>46</u> , <u>48</u> , <u>50</u> , <u>55</u> , <u>58</u> , <u>60</u> , <u>67</u>	2/22
6	<u>1</u> , <u>5</u> , <u>9</u> , <u>12</u> , <u>14</u>	<u>5</u> , <u>6</u> , <u>14</u> , <u>15</u> , <u>19</u> , <u>22</u> , <u>24</u> , <u>29</u> , <u>50</u> , <u>52</u> , <u>56</u> , <u>58</u> , <u>61</u> , <u>65</u>	3/1
7	<u>2</u> , <u>6</u> , <u>13</u> , <u>19</u> , <u>20</u>	<u>1</u> , <u>6</u> , <u>7</u> , <u>16</u> , <u>20</u> , <u>22</u> , <u>27</u> , <u>29</u> , <u>32</u> , <u>35</u> , <u>36</u> , <u>43</u> , <u>48</u> , <u>50</u> , <u>57</u> , <u>63</u> , <u>70</u>	3/9
8	<u>1</u> , <u>8</u> , <u>15</u> , <u>19</u>	<u>3</u> , <u>5</u> , <u>6</u> , <u>12</u> , <u>16</u> , <u>20</u> , <u>21</u> , <u>29</u> , <u>31</u> , <u>38</u> , <u>44</u> , <u>45</u> , <u>48</u> , <u>51</u> , <u>57</u> , <u>62</u> , <u>65</u> , <u>72</u> , <u>74</u>	3/9
9	<u>3</u> , <u>7</u> , <u>10</u> , <u>15</u> , <u>21</u> , <u>27</u>	<u>2</u> , <u>4</u> , <u>6</u> , <u>9</u> , <u>13</u> , <u>22</u> , <u>24</u> , <u>32</u> , <u>33</u> , <u>37</u> , <u>40</u> , <u>41</u> , <u>47</u> , <u>49</u> , <u>52</u> , <u>54</u> , <u>55</u> , <u>58</u> , <u>60</u> , <u>64</u> , <u>67</u>	3/16
10	<u>7</u> , <u>12</u> , <u>20</u> , <u>23</u> , <u>24</u>	<u>5</u> , <u>7</u> , <u>10</u> , <u>14</u> , <u>19</u> , <u>22</u> , <u>24</u> , <u>27</u> , <u>29</u> , <u>30</u> , <u>37</u> , <u>39</u> , <u>41</u> , <u>47</u> , <u>50</u> , <u>57</u> , <u>64</u> , <u>68</u> , <u>72</u> , <u>73</u> , <u>76</u>	3/16
11	<u>3</u> , <u>9</u> , <u>11</u> , <u>13</u> , <u>18</u> , <u>19</u>	<u>2</u> , <u>9</u> , <u>14</u> , <u>19</u> , <u>27</u> , <u>28</u> , <u>30</u> , <u>33</u> , <u>34</u> , <u>44</u> , <u>47</u> , <u>49</u> , <u>53</u>	3/30
12	<u>1</u> , <u>7</u> , <u>10</u> , <u>12</u> , <u>13</u>	<u>2</u> , <u>4</u> , <u>10</u> , <u>14</u> , <u>19</u> , <u>20</u> , <u>24</u> , <u>28</u> , <u>32</u> , <u>36</u> , <u>40</u> , <u>43</u> , <u>47</u> , <u>50</u> , <u>57</u> , <u>59</u> , <u>72</u>	3/30
13	<u>2</u> , <u>3</u> , <u>10</u> , <u>12</u> , <u>18</u> , <u>22</u>	<u>7</u> , <u>11</u> , <u>13</u> , <u>15</u> , <u>25</u> , <u>30</u> , <u>35</u> , <u>38</u> , <u>41</u> , <u>42</u> , <u>46</u> , <u>47</u> , <u>51</u> , <u>54</u> , <u>57</u> , <u>65</u> , <u>66</u> , <u>69</u>	4/10
14	<u>2</u> , <u>8</u> , <u>16</u> , <u>18</u> , <u>27</u> , <u>28</u> , <u>32</u>	<u>3</u> , <u>4</u> , <u>6</u> , <u>10</u> , <u>14</u> , <u>16</u> , <u>20</u> , <u>22</u> , <u>34</u> , <u>40</u> , <u>44</u> , <u>46</u> , <u>51</u> , <u>55</u> , <u>58</u> , <u>61</u> , <u>64</u> , <u>73</u>	4/10
15	<u>1</u> , <u>11</u> , <u>14</u> , <u>18</u> , <u>19</u>	<u>2</u> , <u>10</u> , <u>17</u> , <u>22</u> , <u>28</u> , <u>33</u> , <u>39</u> , <u>51</u> , <u>54</u> , <u>65</u> , <u>67</u> , <u>72</u>	4/27
16	<u>5</u> , <u>9</u> , <u>12</u> , <u>16</u>	<u>2</u> , <u>13</u> , <u>15</u> , <u>18</u> , <u>23</u> , <u>25</u> , <u>28</u> , <u>30</u> , <u>37</u> , <u>44</u> , <u>52</u> , <u>54</u> , <u>61</u> , <u>68</u>	4/27
17	<u>6</u> , <u>9</u> , <u>10</u> , <u>16</u> , <u>20</u>	<u>3</u> , <u>5</u> , <u>9</u> , <u>22</u> , <u>23</u> , <u>38</u> , <u>39</u> , <u>41</u> , <u>42</u> , <u>47</u> , <u>55</u> , <u>58</u> , <u>60</u> , <u>69</u> , <u>72</u>	5/8
18	<u>1</u> , <u>2</u> , <u>3</u> , <u>12</u> , <u>16</u> , <u>20</u>	<u>2</u> , <u>5</u> , <u>10</u> , <u>16</u> , <u>23</u> , <u>28</u> , <u>29</u> , <u>33</u> , <u>34</u> , <u>35</u> , <u>40</u> , <u>41</u> , <u>51</u> , <u>53</u> , <u>57</u> , <u>61</u> , <u>64</u> , <u>70</u>	5/8
19	<u>5</u> , <u>6</u> , <u>12</u> , <u>15</u> , <u>17</u>	<u>2</u> , <u>8</u> , <u>11</u> , <u>15</u> , <u>19</u> , <u>31</u> , <u>33</u> , <u>38</u> , <u>42</u> , <u>44</u> , <u>53</u> , <u>56</u> , <u>58</u> , <u>69</u>	5/8
20	<u>7</u> , <u>8</u> , <u>14</u> , <u>21</u> , <u>29</u> , <u>31</u>	<u>1</u> , <u>6</u> , <u>13</u> , <u>17</u> , <u>19</u> , <u>26</u> , <u>32</u> , <u>43</u> , <u>46</u> , <u>51</u> , <u>55</u> , <u>59</u> , <u>61</u> , <u>62</u> , <u>68</u>	5/15
21	<u>2</u> , <u>5</u> , <u>15</u>	<u>1</u> , <u>2</u> , <u>14</u> , <u>24</u> , <u>26</u> , <u>27</u> , <u>39</u> , <u>41</u> , <u>57</u>	5/15
22	<u>2</u> , <u>7</u> , <u>10</u>	<u>2</u> , <u>5</u> , <u>8</u> , <u>9</u> , <u>11</u> , <u>18</u> , <u>21</u> , <u>26</u> , <u>28</u> , <u>32</u> , <u>34</u> , <u>57</u> , <u>60</u>	5/25

**Pre-class Quizzes:** You are responsible for doing pre-class reading quizzes online. Please go to <http://www.deas.harvard.edu/galileo/students/?courseID=966> , click “sign in” (upper right hand corner. Then at the bottom, click “Not registered? Enroll”. Fill in the information and click register (for Student ID, use anything you want – the last 4 digits of your SSN would be good for me). Once you do that, you can access the reading tests (click “1/31 reading” on the left hand side). The site is also listed on our normal webpage (<http://academic.brooklyn.cuny.edu/physics/holden/physics1.htm>).