

Syllabus

Foundations of Physics I - Fall 2006

"If a man empties his purse into his head, no man can take it away from him. An investment in knowledge always pays the best interest."

-----Benjamin Franklin

Instructor

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Laboratory Instructors

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Website

http://www.lawrence.edu/fast/marlerj/phy120_06.html

Class Schedule

Lectures	M W Fr	8:30 – 9:40 am	YOUN 121
Quiz or Test	W	8:30 am	YOUN 121
Help Session	Sunday	7:00-8:30 pm	YOUN 115
Final Exam	Wednesday, Dec.6 th	1:30 PM	YOUN 121

Texts

- D. C. Giancoli, **Physics** 5th Edition. Check out <http://www.prenhall.com/giancoli/> for sample problems, puzzles, MCAT study guide, etc.
- Laboratory Notebook (National 43-648) and [scientific calculator](#)

Course Description

This is the first of a two course algebra based introductory physics series aimed at students who do not plan to major in physics. Topics covered will include mechanics, dynamics, fluids, waves, and thermodynamics.

Prerequisites: Familiarity with algebra.

Honor Code

The Lawrence University Honor Code applies to all your work and should be reaffirmed on each quiz, laboratory report, and exam you turn in.

Homework

Some time each night should be spent on the homework. Homework will be assigned from each covered chapter. All assigned homework will be collected on Monday morning in class. Homework will be checked for completeness additionally certain specified problems will be graded for accuracy and methodology. Solutions to all assigned homework will be posted on the class web site. Problems that arise should be asked during class, office hours or the Sunday evening help session. Working together on the homework is allowed and encouraged.

Grading

There will be a quiz or test every Wednesday (except the week of Thanksgiving when it will be on a Monday) and a final exam. In total there will be 6 quizzes and 3 tests for the quarter. The average of your highest 5 quiz grades will be used as your quiz grade. All quizzes and tests will be closed book. You will be told ahead of time which (if any) formula will be given on the exam. You should be prepared to recall from memory any other formula needed.

Your final grade will be calculated as follows.

20 % Laboratory

25 % Final

20 % Quizzes

30 % Tests

5% Homework

Rules

A missed test will correspond to a grade of F unless I am notified **prior** to the exam and your excuse is approved by me.

Week	Day	Date	Topics	Due
1	Wed	Sep 20	Chpt 1 Introduction	
	Fri	Sep 22	Chpt 2 Motion and Forces	
2	Mon	Sep 25	Chpt 3 2-D Motion	Chpt 1: 3, <u>5</u> , 10, <u>21</u> , 26, 41 Chpt 2: 1, 6, 11, <u>16</u> , 19, 27, 35, <u>44</u> , 59
	Wed	Sep 27	Chpt 3 cont.	QUIZ
	Fri	Sep 29	Chpt 4 Dynamics	
3	Mon	Oct 2	Chpt 4 cont.	Chpt 3: 2, <u>8</u> , 11, <u>20</u> , 24, 35, 40, 51, <u>52</u>
	Wed	Oct 4	Chpt 5 Circular Motion	QUIZ
	Fri	Oct 6	Chpt 5 cont.	
4	Mon	Oct 9	Chpt 6 Energy	Chpt 4: 5, <u>6</u> , 9, 19, 26, <u>27</u> , <u>30</u> , 35, <u>44</u> , 51, 56 Chpt 5: <u>3</u> , 6, 11, <u>12</u> , 27, <u>30</u> , 36, 39, 42, <u>46</u>
	Wed	Oct 11		TEST on Chpt 1-5
	Fri	Oct 13	Chpt 6 cont.	
5	Mon	Oct 16	Chpt 7 Linear Momentum	Chpt 6: 5, <u>7</u> , 10, 23, <u>26</u> , 32, 35, 41, <u>42</u> , <u>52</u> , <u>64</u>
	Wed	Oct 18	Chpt 7 cont.	QUIZ
	Fri	Oct 20	Chpt 8 Rotational Motion	
6	Mon	Oct 23	Chpt 8 cont.	Chpt 7: <u>2</u> , 4, 7, 15, <u>16</u> , 21, <u>24</u> , <u>32</u> , 49, <u>54</u> , 57
	Wed	Oct 25	Chpt 9 Statics	QUIZ
	Fri	Oct 27	No Class: Reading Period	
7	Mon	Oct 30	Chpt 9 cont. Review	Chpt 8: <u>3</u> , 11, 18, <u>26</u> , <u>30</u> , 33, 43, <u>44</u> , 53, <u>58</u> , 66 Chpt 9: 1, <u>10</u> , 12, 25, <u>28</u> , 31, <u>36</u> , <u>48</u> , 49, <u>57</u>
	Wed	Nov 1		TEST on Chpt 6-9
	Fri	Nov 3	Chpt 10 Fluids	
8	Mon	Nov 6	Chpt 11 Waves	Chpt 10: <u>6</u> , 7, <u>10</u> , 17, <u>24</u> , 27, <u>35</u> , 37, <u>40</u> , 54
	Wed	Nov 8	Chpt 11 cont.	QUIZ
	Fri	Nov 10	Chpt 12 Sound	
9	Mon	Nov 13	Chpt 12 cont.	Chpt 11: <u>2</u> , 7, <u>10</u> , 17, 23, 35, <u>42</u> , 51, <u>52</u> , <u>56</u> Chpt 12: <u>5</u> , 11, <u>16</u> , 31, <u>36</u> , <u>46</u> , 53
	Wed	Nov 15	Chpt 13 Thermodynamics	QUIZ
	Fri	Nov 17	Chpt 13 cont.	
10	Mon	Nov 20		TEST on Chpt 10-12
	Wed	Nov 22		
	Fri	Nov 24	No Class: Thanksgiving Break	
11	Mon	Nov 27	Chpt 14 Heat	Chpt 13: 1, <u>8</u> , 9, <u>15</u> , 17, 31, <u>34</u> , 37, <u>44</u> , 51
	Wed	Nov 29	Chpt 15 Thermodynamics	
	Fri	Dec 1	REVIEW	Chpt 14: <u>6</u> , 9, <u>15</u> , 16, <u>28</u> , 35, <u>36</u> , <u>40</u> , 41 Chpt 15: <u>4</u> , 7, <u>10</u> , <u>18</u> , 21, 25, <u>35</u> , 40, 57
	Wed	Dec 6	1:30 pm: Final Exam	