



Physics I is Fun!



Professor: Ann Marie Eligon

Session: Fall 2009

Office: SC 233B

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Office Hours: AS POSTED ON OFFICE DOOR *or by appointment*

◆ *You may leave voice mail or send me email at anytime*

Lecture: MW 9:30 a.m. - 10:45 a.m. @ SC 144

COURSE DESCRIPTION:

This course includes theory of mechanics: vectors; force; motion; energy; rotation of rigid bodies; elastic properties; vibratory motion; properties of fluids; and molecular theory of matter. It also includes theory of heat; heat transfer; thermodynamics; sound and wave motion phenomena; use of Calculus in problem solving. This course is designed for physics majors and for engineering students. 3 credits (Credit is not given for both PHY 2048 and PHY 1053)

COURSE OBJECTIVES:

- To gain a conceptual understanding of physics
- To develop the ability to think critically
- To use this understanding and ability to solve problems
- To realize that physics can be applied to many different areas

PREREQUISITES: (ENC 0020 and REA 0002) or EAP 1695, and either MAC 2311 or MAC 2253

COREQUISITE: PHY 1048L

REQUIRED TEXTBOOK:

Title: *Essential University Physics – Vol. I*

Author: Wolfson (1st Ed)

Publisher: Pearson



ATTENDANCE and PARTICIPATION: In order to gain the most from this class, **punctual** and **regular** attendance should be practiced. **Mandatory** attendance will be taken during the 1st and 2nd weeks of the semester **and** the week after the 60% withdrawal deadline (10/29/09). Daily attendance is not mandatory; however, attendance will be taken at the beginning of the class period. More than 5 absences may earn the student a grade of 'F' in this class. Please note that it is the student's responsibility to withdraw from the class, if that is your desire. Before October 29, 2009, withdrawal results in a grade 'W' while withdrawal after this date will result in a grade of 'WF.' **The student should note that a withdrawal from PHY 2048 requires withdrawal from the co-requisite laboratory PHY 1048L.**

HOMEWORK: Homework will be assigned for each chapter. The homework assignments will be a means of ensuring that you understand the in-class exercises and course content. It is essential to answer the questions and practice the assigned problems if you are to do your best in this class. These assignments will not be graded; however, the solutions will be



available online in ANGEL.

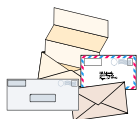


EXAMINATIONS: There will be three exams throughout the semester and a **comprehensive** final. The exams will be closed book, closed notes. For exams you will be provided with an equation sheet and relevant constants.

Students are not permitted to leave the room for ANY reason while taking an examination.

Exam dates are as follows:

Exam dates
Exam 1: 09/16/09
Exam 2: 10/21/09
Exam 3: 11/23/09
Exam 4: Comprehensive Final (TBA)



Make-up Exams

Any student missing a lecture exam, that is, exams 1, 2 or 3 may take a make-up provided they have a legitimate excuse for missing class (i.e. severe illness with doctor's note, family emergency). **All scores on make-up exams will be reduced by 10% each time you need to take one. This penalty applies to ANYONE taking a make-up, No Exceptions!** The 10% penalty is additive, so the first make-up is -10%, the 2nd -20%, the 3rd -30% etc.. Make-up exams must be taken before the exams are returned to the rest of the class (usually the following class period). Note that make-up exams may be of a different format than the original. If you do miss an exam, for a valid reason, please **phone** my office at 341-4791 on the day of the exam. If there is no answer, please leave a message.

There will be no extra credit!



ACADEMIC HONESTY & CIVILITY: St Petersburg College has an Academic Honesty Policy. It is your responsibility to be familiar with the policies, rules, and consequences of violations. Read about the policy at:

<http://www.spcollege.edu/webcentral/admit/honesty.htm>. There is no tolerance for cheating and academic dishonesty. Discipline can range from a zero on a specific assignment to expulsion from the class with a grade of F. Note that copy/pasting published information, whether it's from your textbook or the Internet, without citing your source is plagiarism and violates this policy. Even if you change the words slightly, the ideas are someone else's, so you still have to cite your sources.

GRADING: Grades will be based upon four examinations, which include a comprehensive final. These will count as follows:

3 term exams (25 % each)	75 %
Final exam (COMPREHENSIVE)	<u>25 %</u>
TOTAL	100 %



Letter grades will be assigned according to the following PERCENTAGE scale:

<i>Grade</i>	<i>Percentage</i>
A	90-100
B	80-89.9
C	70-79.9
D	60-69.9
F	0 – 59.9

GENERAL: If you wish to request accommodations as a student with a documented disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at 341-4758.

CAMPUS SAFETY AND SECURITY: For information on campus safety and security policies please contact 727-341-4657. For information on sexual offenders on your campus please contact campus security or the associate provost office or for general information go to the State of Florida website at <http://www3.fdle.state.fl.us/sopu/index.asp>



DROP DATE: Please note that the final day to withdraw with a grade “W” is **Thursday October 29, 2009**

IMPORTANT DATES/HOLIDAYS



- 08/24/09 Classes Begin
- 08/28/09 Last day to Drop with a refund or change to audit
- 09/07/09 Labor day
- 10/29/09 Last day to drop with grade ‘W’
- 11/11/09 Veteran’s Day
- 11/25 to 11/29 Thanksgiving Break

***Final Exam (Comprehensive)
Date & Time To Be Announced***



Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college website for an announcement of the College’s plan to resume operations.

This syllabus is currently available in ANGEL for your convenience. Log into ANGEL to confirm that you have access, reporting any difficulty to the SPC Student Technical Call Center at 727-341-4357 or via email at Onlinehelp@spcollege.edu.

Tentative Class Schedule

Week	Date	Chapter/Topic	Chapter Problems
1	M 08/24	<u>Ch 1</u> : Doing Physics <u>Ch 2</u> : Motion in a Straight Line	Chapter 1: For Thought and Discussion - (Pg 10) 8, 9 Exercises and Problems - (Pg 10-11) 11, 15, 17, 21, 23, 31, 45, 49, 55 Chapter 2: For Thought and Discussion – (Pg 27) 3, 7, 11 Exercises and Problems - (Pg 27-30) 13, 17, 19, 22, 25, 27, 33, 35, 39, 41, 43, 45, 47, 51, 57, 59, 67, 69, 74, 78, 86
	W 08/26	<u>Ch 2</u> : Motion in a Straight Line	
2	M 08/31	<u>Ch 3</u> : Motion in Two and Three Dimensions	Chapter 3: For Thought and Discussion - (Pg 46) 2, 6, 8, 12, 15 Exercises and Problems - (Pg 46-48) 17, 19, 21, 27, 30, 31, 33, 37, 41, 45, 49, 51, 59, 61, 63, 69, 71, 77
	W 09/01	<u>Ch 3</u> : Motion in Two and Three Dimensions	
3	M 09/07	<u>Ch 4</u> : Force and Motion	Chapter 4: For Thought and Discussion - (Pg 64) 2, 8, 10 Exercises and Problems - (Pg 64-66) 13, 15, 17, 19, 23, 25, 29, 31, 33, 37, 39, 41, 45, 49, 53, 55, 61
	W 09/09	<u>Ch 4</u> : Force and Motion	
4	M 09/14	Review for Exam 1	
	W 09/16	Exam 1	
5	M 09/21	<u>Ch 5</u> : Using Newton's Laws	Chapter 5: For Thought and Discussion - (Pg 82) 1, 3, 6, 8 Exercises and Problems - (Pg 82-84) 13, 17, 19, 25, 27, 29, 31, 33, 35, 39, 41, 43, 45, 47, 49, 53
	W 09/23	<u>Ch 5</u> : Using Newton's Laws	
6	M 09/28	<u>Ch 6</u> : Work, Energy, and Power	Chapter 6: For Thought and Discussion - (Pg 99) 2, 7, 10, 11 Exercises and Problems - (Pg 99-101) 13, 14, 19, 21, 22, 23, 27, 29, 31, 33, 37, 41, 42, 43, 47, 49, 51, 53, 67, 69, 75
	W 09/30	<u>Ch 6</u> : Work, Energy, and Power	
7	M 10/05	<u>Ch 7</u> : Conservation of Energy	Chapter 7: For Thought and Discussion - (Pg 114) 4, 10 Exercises and Problems - (Pg 114-117) 11, 15, 17, 19, 21, 23, 25, 27, 33, 35, 38, 39, 49, 61
	W 10/07	<u>Ch 7</u> : Conservation of Energy	
8	M 10/12	<u>Ch 8</u> : Gravity	Chapter 8: For Thought and Discussion - (Pg 129) 3, 6, 9 Exercises and Problems - (Pg 129-130) 14, 17, 19, 21, 25, 27, 31, 36, 37, 39, 41, 47, 53, 57
	W 10/14	<u>Ch 8</u> : Gravity	
9	M 10/19	Review for Exam 2	
	W 10/21	Exam 2	

10	M 10/26	<u>Ch 9</u> : Systems of Particles	Chapter 9: For Thought and Discussion - (Pg 151) 1, 6, 10 <i>Exercises and Problems (pgs 151- 154) 17, 19, 21, 29, 37, 41, 45, 53, 55, 60, 78</i>
	W 10/28	<u>Ch 9</u> : Systems of Particles	
	Th 10/29	<u>Ch 10</u> : Rotational Motion	Last Day to withdraw a Grade "W" Chapter 10: For Thought and Discussion - (Pg 170): 1, 5, 8 <i>Exercises and problems (Pgs 170-172): 17, 18, 21, 23, 27, 31, 33, 35, 43, 45, 47, 53, 59, 61</i>
11	M 11/02	<u>Ch 10</u> : Rotational Motion	
	W 11/04	<u>Ch 11</u> : Rotational Vectors and Angular Momentum	Chapter 11: For Thought and Discussion - (Pg 183): 1, 5, 6 <i>Exercises and problems (Pgs 183-184): 13, 15, 17, 19, 21, 23, 25, 27, 30, 32, 35, 47</i>
12	M 11/09	<u>Ch 11</u> : Rotational Vectors and Angular Momentum	
	W 11/11	Veteran's Day	No Class
13	M 11/16	<u>Ch 12</u> : Static Equilibrium	Chapter 12: For Thought and Discussion - (Pg 196): 1, 3, 6 <i>Exercises and problems (Pgs 196-201): 15, 16, 21, 23, 24, 25, 27, 31, 40, 59</i>
	W 11/18	Review for exam 3	
14	M 11/23	Exam 3	
	W 11/25	Thanksgiving Holiday	No class
15	M 11/30	<u>Ch 12</u> : Static Equilibrium	
	W 12/02	<u>Ch 13</u> : Oscillatory Motion	
16	M 12/07	<u>Ch 15</u> : Fluid Motion	Chapter 15: For Thought & Discussion (Pg. 256): 4, 5 <i>Exercises and problems (Pgs. 256-257): 16, 18, 23, 25, 27, 30, 33, 40, 42, 47</i>
	W 12/09	<u>Ch 15</u> : Fluid Motion	
17		Final Exam - Comprehensive	Date & Time TBA