PHY 2048 Physics with Calculus 1
(Summer 2012: Sections 8691, 8692, 8693, 8694, for 3 credits)
Tentative Syllabus (Version of 16 May 2012)
http://www.phys.ufl.edu/~meisel/PHY2048-Summer-2012.html

Instructor:
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Email: meisel@phys.ufl.edu
Office Hours: see http://www.phys.ufl.edu/~meisel/schedule.htm and by appointment.

Teaching Assistant:
Yan Wang, Department of Physics, University of Florida
Office: NPB 2157
Email: ywang@phys.ufl.edu
Office Hours: Tuesdays, Summer Session Period 7: 5:00 pm to 6:15 pm

Email Correspondence with Instructor:
Professor Meisel will attempt to respond, within 24 hours, to email (from UF email accounts) if the message contains the name of the student. Email will only be sent to UF Email addresses.

Prerequisites and Corequisite:
Prerequisite: high-school physics or PHY 2020 or the equivalent AND MAC 2311.
Corequisite: MAC 2312.

Meeting Times:
Lecture: Mondays, Wednesdays, Fridays: 3rd period in Summer session (11:00 am – 12:15 pm) in NPB 1001. Students are expected to attend the lecture sessions.

Discussion Sections: Students are expected to attend the meeting associated with their registered section.

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Summer session period</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8691</td>
<td>Tuesdays</td>
<td>2nd period (9:30 am – 10:45 am)</td>
<td>NPB 1101</td>
</tr>
<tr>
<td>8692</td>
<td>Wednesdays</td>
<td>4th period (12:30 pm – 1:45 pm)</td>
<td>NPB 1101</td>
</tr>
<tr>
<td>8693</td>
<td>Tuesdays</td>
<td>3rd period (11:00 am – 12:15 pm)</td>
<td>NPB 1220</td>
</tr>
<tr>
<td>8694</td>
<td>Wednesdays</td>
<td>5th period (2:00 pm – 3:15 pm)</td>
<td>NPB 1220</td>
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</tbody>
</table>

General Education:
This course is designated “P” for Physical Sciences Requirement of the General Education Requirement at the University of Florida. The significance of this designation and the associated details, including the Student Learning Outcomes (SLOs) and their connection to the Academic Learning Compacts (ALCs), are discussed at the official UF General Education Webpage, see http://gened.aa.ufl.edu/purpose.aspx.
Textbook:
The “official” textbook, “Fundamentals of Physics, 9th edition, Volume 1”, by David Halliday, Robert Resnik, and Jearl Walker. The “unofficial” textbook is the 8th edition, Volume 1. NOTE: Volume 1 contains Chapters 1 to 20, inclusive, and it is sometimes sold as Part 1 and Part 2 of the first part of the tome. DO NOT CONFUSE these items with Volume 2 and Part 3 and Part 4 of the entire tome. Either edition, 8th or 9th, will work for this course, as the 9th edition is only incrementally different than the 8th. Homework problems that are assigned will specify the edition and number and are otherwise the same. For this semester, you will NOT NEED the online homework code or any other resources that the UF Bookstore might try to sell you. As of the end of April 2012, the UF Bookstore (online) was posting a price of $70 (not including tax) for Volume 1, 9th edition, and this UF pricing, should include a code that allows access to “WileyPlus”. Alternatively, there appears to be UF pricing for Volume 1 of the 9th edition in electronic format along with access to “WileyPlus” for about $30, see http://www.wiley.com/WileyCDA/Section/id-404361,redirect-HE.html. (Note: when the advertisement says “your professor”, it does not mean me but one or several of my colleagues in the department.) Finally, I was able to find a hardcopy of the 8th edition of Volume 1 for under $20, including shipping.

Posting:
Materials and information concerning the course, including important dates and an “in vivo” schedule will be posted on the Course Webpage, see http://www.phys.ufl.edu/~meisel/PHY2048-Summer-2012.html.

Subject and Focus of the Course:
This course is mainly an introduction to Newtonian mechanics, and several other topics, such as oscillations and waves, are covered at the end of the semester. The material covered is the foundation of many aspects of science and engineering, so both qualitative and quantitative understanding of the concepts are goals of this course. The quantitative understanding of the topics is gained by using geometry and calculus.

Attendance:
Attendance in class is definitely expected since material outside the textbook may be presented. You are responsible for all material covered in the text and in class. All of this material is relevant for any graded exercise, including quizzes and tests, unless otherwise stated. The HITT system (described below) will be used to examine your understanding of the material as it is presented, and you must be present to participate in these graded exercises.

Homework Problems:
Homework will be assigned but will not be collected or graded. However, it is important to note that all graded material will be based on these types of problems and similar ones. In addition, the homework problems will be the basis of the problem solving sessions in the discussion sections.
Grading:
During the course and during the regular class meeting times, there will be three tests (100 points each for about 75 minutes). At the end of the semester, there will be a comprehensive final exam (100 points and for 75 minutes). All of these tests and the final exam will count toward the final grade.

In discussion sections, there will be 8 quizzes (each with a maximum score of 4 points), and the highest 7 scores on the quizzes will count toward the final grade. In addition, in discussion sections, there will be 9 graded assignments (each with a maximum score of 3 points) that will be worked in small groups, and the highest 8 scores on these small group exercises will count toward the final grade.

During the lecture sessions, the HITT System (Remote Response System) will be used to monitor the understanding of the topics being discussed. The HITT System may be used at any time during the class period. In some instances, the responses will not be graded as correct or incorrect, so the point is awarded for participation. For the other cases, the exercise will be graded in either a “2-1” (2 points for the correct response and 1 point for an incorrect response) or “5-2” (5 points for the correct response and 2 points for an incorrect response) formats. A total of 60 points will be available with the HITT System. To accommodate instances when technical issues might arise with a student’s transponder, only 48 points of the 60 total available points will count to the final grade. In most instances, the HITT exercises will be open book and “chat with a neighbor”; however, electronic devices linked to the web will NOT be permitted. The specific rules covering each exercise will be explained when the problem is presented.

In summary, the total number of available points is 500. Attendance for all graded material in discussion and lectures sections is expected. The final course letter grade assignment will be based on percentage of points earned will be discussed in class, and the UF grading policies can be found at found at: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx. For this course, the following scale will be used.

<table>
<thead>
<tr>
<th>Summary of Points Available</th>
<th>Final Course Grade Scale (fixed)</th>
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<tbody>
<tr>
<td>Test 1 100 points 20.0%</td>
<td>A 85% - 100%</td>
</tr>
<tr>
<td>Test 2 100 points 20.0%</td>
<td>A- 80% - 84.999999%</td>
</tr>
<tr>
<td>Test 3 100 points 20.0%</td>
<td>B+ 75% - 79.999999%</td>
</tr>
<tr>
<td>Final Exam 100 points 20.0%</td>
<td>B 70% - 74.999999%</td>
</tr>
<tr>
<td>Quizzes 28 points 5.6%</td>
<td>B- 65% - 69.999999%</td>
</tr>
<tr>
<td>Small group work 24 points 4.8%</td>
<td>C+ 60% - 64.999999%</td>
</tr>
<tr>
<td>HITT excercises 48 points 9.6%</td>
<td>C 55% - 59.999999%</td>
</tr>
<tr>
<td></td>
<td>C- 50% - 54.999999%</td>
</tr>
<tr>
<td>Total 500 points 100.0%</td>
<td>D+ 45% - 49.999999%</td>
</tr>
<tr>
<td></td>
<td>D 40% - 44.999999%</td>
</tr>
<tr>
<td></td>
<td>D- 35% - 39.999999%</td>
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<tr>
<td></td>
<td>E 0% - 34.999999%</td>
</tr>
</tbody>
</table>
Make-Up of Graded Material Policy:
Only in the event of extraordinary circumstances will students be allowed to take a make-up graded material, including tests, exams, quizzes, small group exercises, and HITT questions. The only way students will be allowed to take a make-up exercise is if they have a legitimate excuse, accompanied by some documentation from a medical doctor, an attorney, or a UF official. Notes from family members are not acceptable. When possible, the student should inform the Instructor in advance of potential absences from graded assignments. Professor Meisel will make all decisions concerning the make-up of any graded material. If approved, the make-up graded material will occur on Friday, 10 August, during the regular class period and in the regular lecture hall. The details of UF Attendance Policies are posted online at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Academic Honesty:
Each student is expected to generate graded work by an individual and original effort. It is understood that some students benefit from “group study”. In fact, the small group exercises and the discussion about the HITT questions are designed to accommodate this kind of peer teaching opportunities. However, each student in attendance during lecture is only allowed to use the HITT transponder that is appropriately registered to the person using it. In other words, sharing HITT transponders is not permitted, and this policy includes the use of a HITT transponder that is registered to a student who is absent. Furthermore, all quizzes, tests, and the final examination will be individual efforts, using only the materials authorized by the Instructor. Violation of any of these rules will be treated as a violation of academic honesty and will be treated according to UF policy. Please review the University Policies on Academic Honesty, and helpful links are: http://www.dso.ufl.edu/sccr/ and http://www.dso.ufl.edu/studenthandbook/studentrights.php. Note that the process is one that involves the faculty member and the students:

“In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. A student-run Honor Court and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon the community acceptance and enforcement of the Honor Code.”

Accommodations:
Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. The Dean of Students Office maintains a webpage at http://www.dso.ufl.edu/.
Advising and Counseling:
If you have any questions about your path to a BA or BS or “minor” in Physics, please consult with one of the undergraduate advisors in the department, see: http://www.phys.ufl.edu/academics/undergraduate/. The Department takes part in "UFTeach", a program designed to develop the next generation of Florida's math and science teachers. For more details see http://ufteach.clas.ufl.edu.

Due to the nature of the environment at the university, it is not uncommon for students to experience stressful situations, and “study harder” sometimes does not seem to work. If you find yourself in this situation, you are encouraged to seek confidential counseling, see: http://www.counseling.ufl.edu/cwc/.

Incomplete Policy:
A grade of incomplete is typically given to students who endure a situation in which they are incapable of completing the coursework. The I-grade is not to be given to students who are simply dissatisfied with their performance in the course. If you find you are in a situation that might qualify you for an I-grade in this course and you want to pursue this potential option, then you must contact me immediately and be sure to have the necessary documentation from a medical doctor or an attorney. Again, letters from family members are not acceptable. A letter of understanding indicating when and how the incomplete grade will be made up will eventually be drafted and signed by the student and the Instructor.

If you are a student from a previous semester and you are participating in this course to resolve an I-grade, you must meet with the Instructor during the first week of the course to discuss the details about your situation.

Special Notes about the Syllabus:
Please note that the dates for all HITT exercises, tests, quizzes, graded exercises, and chapter starts are TENTATIVE. The schedule will be finalized during the course and will be announced in class and posted to the “in vivo” schedule, see http://www.phys.ufl.edu/~meisel/PHY2048-Summer-2012.html.

The date of the Final Exam is NOT tentative and is set for Wednesday, 08 August, during the regular class period and in the regular lecture hall.

Materials Allowed for Quizzes, Tests, and Examinations:
A common formula sheet will be provided for each test and for the final exam. The formula sheet will be discussed as it evolves. For the exam, you will need to bring your UF ID, No. 2 pencils, and a standard calculator. You may use calculators that have the ability to store formula, but you may NOT use the stored formula feature. Calculators associated with any type of “smart” or “not-so-smart” telephone or similar device are not allowed. Violation of any of these rules will be treated as a violation of academic honesty and will be treated according to UF policy.
Comments on Knowing Your Grades:
The E-Learning system is used to electronically post the grades, https://lss.at.ufl.edu/. If you have any questions about your points on any material or for the course, please contact the Instructor. The grade reports are typically updated once a week, and students are encouraged to check regularly.

HITT Remote Responder Required:
You need to have your own HITT remote transponder. Before purchasing a new one or borrowing an old one from a friend, please review the hardware requirements at: http://www.phys.ufl.edu/~hitt/.

HITT Registration Required:
You must correctly register your unit before Monday, 21 May. The registration web-based site is at: http://www.phys.ufl.edu/~hitt/. YOU MUST USE YOUR UF EMAIL ADDRESS!

HITT Comments:
You are responsible for having an operational and appropriately registered device. Testing will occur during classes prior to Monday, 21 May. On Monday, 21 May, the recording of the points will begin.

Acknowledgements:
I gratefully acknowledge information and insight provided by Professors Selman Hershfield and Jack Sabin.