SYLLABUS
Department of Physics, UWF

Course Prefix/Number: PHY 2048: 1038
Term: Spring 2015
Course Title: University Physics I
Course Credit Hours: 3 Hours

Requirements:

TEXTBOOK:


- Web access for online assignments and the campus eLearning system.
- Mastering Physics web access (comes with the textbook or you have to buy it online)
- Supplement: Student Workbook (Comes with the Text Book)

Optional Text:

- Physics for Scientists and Engineers: Student Solutions Manual

ADDITIONAL MATERIALS: Personal Response Card by Turning Point Technologies, protractor, ruler, and compass.

PREREQUISITE: MAC 2311 (Calculus 1) or equivalent class (strictly enforced). This course requires an extensive use of integrals, differentiation, algebra, and trigonometry. The student is strongly encouraged to refresh these concepts as soon as possible.

INSTRUCTOR: Laszlo Ujj, Ph.D., Associate Professor of Physics

OFFICE: Department of Physics, Building 4, Room 141, Phone: 474-2645, E-mail: Lujj@uwf.edu

OFFICE HOURS: Tuesdays and Thursdays: 9:30-11:00 and Wednesday: 9:00-11:00 am
Feel free to stop by to my office with questions or comments or contact me by email, etc., for a definite time to come by.

LECTURES:
Period: 01/06 - 04/25, spring 2015, Building 4, room 402, Tuesdays and Thursdays: 8:00-9:15 am.
ELEARNING: The eLearning course page will contain the most up-to-date information regarding the course, i.e. the syllabus, due dates, announcements, and grades.

MASTERING PHYSICS: Mastering Physics is a web resource that we will be using for all of the assigned homework. It provides feedback (for certain problems), hints, and additional study exercises or simulations or videos. The link below will bring you to the student FAQs where you will find helpful videos to guide you through the registration process. [http://www.masteringphysics.com/site/support/faq-students.html](http://www.masteringphysics.com/site/support/faq-students.html)

In order to register you have to use the Mastering Physics Course ID of this course:

MPUJJ2015UP1SPRING

Course Description:

University Physics I is the first of a two-semester sequence of physics topics chosen as an introduction to this science. This is a calculus based physics course. The principal topics covered in this course are mechanics, the science of motion (kinematics and dynamics) of particles and rigid bodies including the laws of motion, conservation laws and principles, gravity, oscillations and traveling waves. Mechanics is the basis for much of engineering and applied science, and many of the ideas introduced here will be needed later to understand things like the motion of material waves and the motion of electrons through circuits or contemporary concepts of science including modern physics. We will cover chapters 1-12, 14, 20, 21 of the text book. Remember that this is a problem-oriented course. You will be responsible to learn the material covered in class and assigned for reading.

University Physics I is designated as a General Studies course. The General Studies curriculum at the University of West Florida is designed to provide a cohesive program of study that promotes the development of a broadly educated person and provides the knowledge and skills needed to succeed in university studies. This course has been approved as meeting your requirement in the science area. The major General Studies learning outcomes for this course are Problem Solving and Quantitative Reasoning.

Student Learning Outcomes:

- In accordance with the general educational mission, you are here to learn *new analytical tools* that will serve you well in a broad range of professions.
- The course will *generate interest* for a deeper understanding of nature.
- Along the way of mastering the subject you will learn how to use physics to *analyze and solve* many practical problems.
- Specifically, a student who masters this subject will have the following skills:
  - The ability to *model reality* in terms of abstract objects and physical laws.
  - The ability to express these models *verbally*.
  - The ability to express these models *graphically*.
  - The ability to express these models *mathematically*.
  - The ability to *manage complexity* in terms of distinct and simpler concepts.
Topics Covered:

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<th>Chapter</th>
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<td>Concepts of Motion</td>
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<td>Kinematics in one Dimension</td>
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<td>Vectors and Coordinate Systems</td>
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<td>Force and Motion</td>
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<td>Newton’s Third Law</td>
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<td>Dynamics II: Motion in a Plane</td>
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<td>Superposition</td>
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<td></td>
<td><strong>Final Exam</strong></td>
<td>04/28/2015 6 pm., 4/102, comprehensive</td>
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**Note: Spring Vacation -3/9/15-3/13/15**

**HOMEWORK:** There will be homework assignments given out every week. Mastering Physics web resources will be used for homework assignments. Solutions will be available after the due date. The problems are identical or similar to the end of chapter problems of the text book. Only a few of these will be worked out in class. It is important that you work out homework problems before looking at solutions. The tests will be very similar to these.

**EXAMS:** Every exam will have two sections. The first one will ask you to write a brief but comprehensive paragraph explaining the laws or concepts studied. You have to use both emblematic and written clarifications. Only pencil and paper can be used for this part. The second part of the exam is a problem solving section. There will be 3 midterm tests and a final exam. All will be closed book and open notes.

**NOTE:** The Midterms and the Final take place outside of the normal times (announced later). You must make arrangements to be available during the midterm. In the event that you have another class/exam at these times, please contact me immediately so alternate arrangements can be made. Do **NOT** wait until the week before the exam to make alternate arrangements.

**COURSE GRADE and GRADE SCALE:**

100% Total = 20% (homework) + 15% (1st exam) + 15% (2nd exam) + 15% (3rd exam) + 25% (Final Exam) + 10% (class attendance and participation).
Grade Scale: 90 -100% A ; 85 - 90% A- ; 80 - 85% B+ ; 75 - 80% B; 70 - 75% B- ; 67 - 70% C+, 64 - 67% C, 60 - 64% C- ; 55 - 60% D+; 50 -55% D; < 50% F

HELP: Get help if you are falling behind or take way too much time to learn or comprehend the material assigned. I am available during my office hours. Tutoring is available in the Physics Tutor Center in Building 4, Room 321. (0.999% rounding bonus if significantly used) Make sure to log-in!!! This is the only record of you using the tutoring center. Make sure to check in and check out. If you do not, you will not receive credit for that days visit. See the Physics office or website for the schedule.

Expectations for Academic Conduct/Plagiarism Policy: As members of the University of West Florida, we commit ourselves to honesty. As we strive for excellence in performance, integrity—personal and institutional—is our most precious asset. Honesty in our academic work is vital, and we will not knowingly act in ways that erode that integrity. Accordingly, we pledge not to cheat, nor to tolerate cheating, nor to plagiarize the work of others. We pledge to share community resources in ways that are responsible and that comply with established policies of fairness. Cooperation and competition are means to high achievement and are encouraged. Indeed, cooperation is expected unless our directive is to individual performance. We will compete constructively and professionally for the purpose of stimulating high performance standards. Finally, we accept adherence to this set of expectations for academic conduct as a condition of membership in the UWF academic community.

Please, read also Academic Misconduct Policy: http://uwf.edu/osrr/

Assistance: The Student Disability Resource Center (SDRC) at the University of West Florida supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, such as time-limited exams, inaccessible web content, or the use of non-captioned videos and podcasts, please notify the instructor or the SDRC as soon as possible. You may contact the SDRC office by e-mail at sdrc@uwf.edu or by phone at (850) 474-2387. Appropriate academic accommodations will be determined based on the documented needs of the individual. SDRC will provide the student with a letter for the instructor that will specify any recommended accommodations.

WITHDRAWALS: UWF policy requires that students submit to Records and Registration a completed withdrawal form to withdraw from courses. Check the 2014-2015 Catalog of UWF. No withdrawals can be made after the close date of the classes.

Emergency Information and Course Continuity Statement
- In the case of severe weather or other emergency, the campus might be closed and classes cancelled. Official closures and delays are announced on the UWF website and broadcast on WUWF-FM.
- Weather Emergency Information
  - WUWF-FM (88.1MHz) is the official information source for the University. Any pertinent information regarding closings, cancellations, and the re-opening of campus will be broadcast.
  - In the event that hurricane preparation procedures are initiated, the UWF Home Web Page and MyUWF will both provide current information regarding hurricane preparation procedures, the status of classes, and the closing of the University.
Emergency plans for the University of West Florida related to inclement weather are available on the following UWF web pages: Hurricane preparedness, Other emergency procedures.

Message from Your Instructor:

Welcome to University Physics I. I hope you had a restful break and are looking forward to start a new semester. Please be sure to read the syllabus and become familiar with it.

Materials: Have your text book the first day of class. The textbook comes with the workbook. We’ll use it during this class. Make sure you have one.

I will begin the lectures the first day of class. With this in mind, please read the introductory notes of the book in preparation for our first day and get familiarity with the book.

The laws of physics are relatively few in number, but the myriad of different circumstances in which they may be applied shows that only strict memorization is not the best procedure for learning the subject matter. Rather, applying the concepts of physics to numerous problems leads to a much better understanding of physics. Therefore you are advised to apply the concepts to as many problems as possible in order to gain a deeper insight into the subject. Lastly, please review your trigonometry, algebra and calculus. We will use these regularly in classes. Any review of these in class will be brief and are meant to refresh your memory, not to teach them to you.

With that said, I look forward to meeting and working with each and every one of you over the next term.

Good luck and do not worry if there are unexpected problems at the beginning. Just send me an email if you think I can solve your problem. Please, write “MYUP1” into the subject line if you want to be sure that I will read your email. This is because I am getting too many emails a day.

Laszlo Ujj, Ph.D., Associate Professor,
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University of West Florida, Pensacola, Florida 32514