Overview

This is a one semester course intended to discuss basic key ideas in physics. The course has no prerequisites. It is designed for students without any prior physics background. The mathematical language during this course is kept at minimum. The course covers classical as well as introductory modern physics. Specifically we will explore the concepts in motion, matter, heat, sound, electricity, magnetism, light and nuclear physics.

Objectives

Students will learn the concepts and ideas behind the fundamental laws governing the physical universe.

Prerequisites

None.

Topics

Motion, matter, heat, sound, electricity, magnetism, light, nuclear physics.

Student Learning Outcomes

- Students will develop an understanding of physical principles and concepts.
- Students will be able to analyze real world phenomena based on physical concepts.
- Students will have a working knowledge of solving simple problems using basic algebra.
- Students will appreciate physics rather than being apprehensive about it.

Course Meetings

Tuesday/Thursday, 11:00 am – 12:15 pm, SMC B336

Office Hours

Wednesday, 2:00pm - 3:00pm
Thursday, 1:00 pm - 2:00 pm

Please do not hesitate to come by my office or contact me for extra help outside of these office hours.
Course Materials

Textbook


Online Materials

Course announcements, assignments, and other materials will be posted on Canvas. Homework assignments will be delivered through Pearson Education’s Mastering Physics online assignment system. Access to Mastering Physics can be purchased through the campus book store. A link to this course’s materials in Mastering Physics will be posted in Canvas. Students *must* purchase Mastering Physics access.

Evaluation

Exams

There will be four in-semester tests and one final exam. All exams are multiple-choice format. The final exam is cumulative and mandatory for everyone. Your lowest in-semester test score will be dropped. Your three highest in-semester exams and your final exam will each be worth one fourth of your final grade.

See course schedule below for exam dates.

Homework

Home work will *not* be collected or graded. It is, however, in the interest of students to do the homework as completing assignments in strongly correlated with good performance on exams. Homework is delivered through Pearson Education’s Mastering Physics online assignment system. A link to this course’s materials in Mastering Physics will be posted in Canvas. There is an assignment associated with each chapter which will be made available on the day the chapter is covered in class.

Grading Scale

A+=97-100%; A=93-96%; A-=90-92%; B+=87-89%; B=83-86%; B-=80-83%; C+=77-79%; C=73-76%; C-=70-72%; D+=67-69%; D=63-66%; D-=60-62%; F=59% or below.

Attendance

Lectures

Attendance will not be taken. However, it is in the interest of each and every student to attend all lectures, as lecture attendance is correlated with good performance on exams. Students are responsible for keeping abreast of materials covered in missed classes.
Exams
Absences from exams will only be excused given a valid reason, such as: illness (doctor’s note required), deaths in the immediate family and other documented crises, court-imposed legal obligations (e.g., jury duty and subpoenas), and severe weather conditions. Employment schedules and athletic training/practice schedules of students do not comprise a valid excuse. Missed exams must be made up.

Exam Policies
Exams are closed book. No electronic devices, including computers, calculators, and phones, may be used during exams. Phones must be switched off. No formula sheets are allowed.

Plagiarism
Don’t do it.

The University of South Florida has an account with an automated plagiarism detection service which allows student assignments be checked for plagiarism. I reserve the right to ask students to submit their assignments to Turnitin through Canvas. Assignments are compared automatically with a database of journal articles, web articles, and previously submitted papers. The instructor receives a report showing exactly how a student’s paper was plagiarized.

PLEASE REMOVE YOUR NAME FROM THE BODY OF YOUR PAPER AND REPLACE IT WITH YOUR USF ID#. ALSO REMOVE YOUR NAME FROM THE FILE NAME AND REPLACE IT WITH YOUR USF ID# (e.g., “U12345678 Essay 1.docx”) BEFORE SUBMITTING IT TO TURNITIN.

Pursuant to the provisions of the Family Educational Rights and Privacy Act (FERPA), students are requested to maintain confidentiality as a way to keep their personal contact information (i.e. name, address, telephone) from being disclosed to vendors or other outside agencies. By your submission, you are also agreeing to release your original work for review for academic purposes to Turnitin.

Course Schedule
Below is a tentative lecture schedule, subject to change based on actual progress in class. Exam dates, however are fixed.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic:</th>
<th>Chapters, HW:</th>
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<tbody>
<tr>
<td>Aug. 25</td>
<td>Introduction: What is Science?</td>
<td>Chapter 1</td>
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<td>Aug. 27</td>
<td>Motion, Newton’s 1st Law</td>
<td>Chapter 2, 3</td>
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<td>Date</td>
<td>Topic</td>
<td>Chapter</td>
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<tr>
<td>Sept. 1</td>
<td>Newton’s 2nd &amp; 3rd Laws</td>
<td>4, 5</td>
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<td>Sept. 3</td>
<td>Momentum, Energy</td>
<td>6, 7</td>
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<td><strong>Labor Day Holiday   September 7, 2015</strong></td>
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<tr>
<td>Sept. 8</td>
<td>Rotational Motion, Gravity</td>
<td>8, 9</td>
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<td>Sept. 10</td>
<td>Orbits</td>
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<td>Sept. 15</td>
<td>Review 1</td>
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<td><strong>Exam #1 (Chapters 1-10): Thursday, September 17, 2015</strong></td>
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<td>Sept. 22</td>
<td>Atomic Nature of Matter, Solids</td>
<td>11, 12</td>
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<td>Sept. 24</td>
<td>Liquids, Gases</td>
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<td>Sept. 29</td>
<td>Temperature, Heat Transfer</td>
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<td>Oct. 1</td>
<td>Phase Changes, Thermodynamics</td>
<td>17, 18</td>
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<td>Oct. 6</td>
<td>Review 2</td>
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<td><strong>Exam #2 (Chapters 11-18): Thursday, October 8, 2015</strong></td>
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<td>Oct. 13</td>
<td>Vibrations &amp; Waves</td>
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<td>Oct. 15</td>
<td>Sound</td>
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<td>Oct. 20</td>
<td>Musical Sounds</td>
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<td>Oct. 22</td>
<td>Electrostatics</td>
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<td>Oct. 27</td>
<td>Electric Current</td>
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<td>Oct. 29</td>
<td>Magnetism &amp; Electromagnetic Induction</td>
<td>24, 25</td>
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<td><strong>October 31, 2014   Last day to drop with a “W”</strong></td>
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Nov. 3  Review 3

Exam #3 ( Chapters 19-25): Thursday, November 5, 2015

Nov. 10  Light & Color  Chapter 26, 27

Veterans’ Day Holiday  November 11, 2015

Nov. 12  Reflection, Refraction, Waves  Chapter 28, 29

Nov. 17  Light Emission, Quanta  Chapter 30, 31

Nov. 19  Atomic and Nuclear Physics  Chapter 32 - 34

Nov. 24  Relativity  Chapter 35, 36

Thanksgiving Break: November 26-27, 2015

Dec. 1  Review 4

Exam #4 ( Chapters 26 - 36): Thursday, December 3, 2015

Final Exam: Wednesday, December 9th, 2015, 10 am - noon

You will be responsible for all material covered in this course.

USFSM and USF System Policies

A. Academic Dishonesty: The University considers any form of plagiarism or cheating on exams, projects, or papers to be unacceptable behavior. Please be sure to review the university’s policy in the USFSM Catalog, the USF System Academic Integrity of Students, and the USF System Student Code of Conduct.

B. Academic Disruption: The University does not tolerate behavior that disrupts the learning process. The policy for addressing academic disruption is included with Academic Dishonesty in the USFSM Catalog, USF System Academic Integrity of Students, and the USF System Student Code of Conduct.

C. Contingency Plans: In the event of an emergency, it may be necessary for USFSM to suspend normal operations. During this time, USFSM may opt to continue delivery of instruction through methods that include but are not limited to: Canvas, online conferencing/collaboration tools, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor Canvas for each of their
classes for course specific communication, as well as the USFSM website, their student email account, and MoBull messages for important general information. The USF hotline at 1 (800) 992-4231 is updated with pre-recorded information during an emergency. See the Campus Police Website for further information.

D. Disabilities Accommodation: Students are responsible for registering with the Office of Students with Disabilities Services (SDS) in order to receive academic accommodations. Reasonable notice must be given to the SDS office (typically 5 working days) for accommodations to be arranged. It is the responsibility of the student to provide each instructor with a copy of the official Memo of Accommodation. Contact Information: Disability Coordinator, 941-359-4714, discretvityservices@sar.usf.edu, http://usfsm.edu/disability-services/.

E. Fire Alarm Instructions: At the beginning of each semester please note the emergency exit maps posted in each classroom. These signs are marked with the primary evacuation route (red) and secondary evacuation route (orange) in case the building needs to be evacuated. See Emergency Evacuation Procedures.

F. Religious Observances: USFSM recognizes the right of students and faculty to observe major religious holidays. Students who anticipate the necessity of being absent from class for a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second week of classes. Instructors canceling class for a religious observance should have this stated in the syllabus with an appropriate alternative assignment.

G. Protection of Students Against Discrimination and Harassment:
1. Sexual Misconduct/Sexual Harassment Reporting: USFSM is committed to providing an environment free from sex discrimination, including sexual harassment and sexual violence (USF System Policy 0-004).
2. Other Types of Discrimination and Harassment: USFSM also is committed to providing an environment free from discrimination and harassment based on race, color, marital status, sex, religion, national origin, disability, age, genetic information, sexual orientation, gender identity and expression, or veteran status (USF System Policy 0-007).

The Counseling and Wellness Center is a confidential resource where you can talk about incidents of discrimination and harassment, including sexual harassment, gender-based crimes, sexual assault, stalking, and domestic/relationship violence. This confidential resource can help you without having to report your situation to either the Office of Student Rights and Responsibilities (OSSR) or the Office of Diversity, Inclusion, and Equal Opportunity (DIEO), unless you request that they make a report.

Please be aware that in compliance with Title IX and under the USF System Policy, educators must report incidents of discrimination and harassment, including sexual harassment, gender-based crimes, sexual assault, stalking, and domestic/relationship violence. If a student discloses any of these situations in class, in papers, or to a faculty member personally, he or she is required to report it to OSSR or DIEO for investigation. Students who are victims or who have knowledge of such discrimination or harassment are encouraged to report it to either OSSR or DIEO. The Deputy Coordinator for USFSM is Allison Dinsmore, Coordinator of Disability Services & Student Advocacy, 941-359-4714 or adinsmore1@sar.usf.edu.
Campus Resources:
Counseling Center and Wellness Center 941-487-4254
Victim Advocate (24/7) 941-504-8599

List of off-campus resources:
HOPE Family Services: 941-755-6805
Safe Place & Rape Crisis Center (SPARCC) – Sarasota: 941-365-1976
First Call for Help- Manatee: 941-708-6488

- Sarasota & North Port 941-366-5025
Manatee Glens: 941-782-4800; 24-hr Hotline 941-708-6059

**H. Web Portal Information:** Every newly enrolled USF student receives an official USF e-mail account. Students receive official USF correspondence and Canvas course information via that address. The web portal is accessed at http://my.usf.edu.