Course Syllabus

PHY2053: Physics without Calculus I RVAA

SUMMER A 2019

Professor Information

Instructor: Dr. Prem Chapagain (Professor)

Phone: (305) 348-6266

Office: CP 230 (or CP253)

E-mail: Message through Canvas

Fax: (348) 348-6700

Office Hours:
MTWR 12:15-1:30 pm
or by appointment.

Course Description and Purpose

THIS COURSE REQUIRES IN PERSON EXAMS

PHY2053 is the first semester of the algebra based introductory physics course offered at FIU. This course is usually taken by students in the life sciences – including pre-medicine, pre-dentistry, pre-optometry, pre-veterinary, and associated health fields, and also construction management and other science and technology fields. This course is not for physics majors or engineering majors. The only mathematical background that is required is algebra and trigonometry; no calculus is used.

Physics is the most basic or fundamental of the sciences. Everything you will learn in this course such as principles, concepts and problem solving skills will be invaluable for your future endeavors. PHY 2053 is full of examples from your daily lives that you can relate to and understand by using simple reasoning. You will learn the nature of physical theory, and most importantly you will learn how to solve problems.

The course covers an introductory Newtonian mechanics, which includes: kinematics (the study of motion in one and two dimensions), dynamics (the study of the causes of the motion of objects through space and time) identified through Newton’s three laws of motion, and gravitation, rotational motion, and periodic motion. The
The course is based on the textbook *College Physics 10th Edition* by Hugh D. Young et al. The book comes with a student access kit for MyLab Mastering Physics. If you bought a used book without Mastering Physics, you can purchase it online. Either a hardcopy or an e-text version of the book will work fine. Given that Newtonian physics has been around for centuries, there are other suitable texts available that may be more cost effective. However, I intend to follow the text book rather closely and access to this text book will make it easier to follow along the assigned homework problems. I would strongly encourage everyone to begin reading through the text book before the first day of class.

Communication will take place primarily via canvas email message and professor announcements. Make sure to Regularly Check Announcements.

Course Objectives

Upon completing this course, students will be able to:

- Develop quantitative skills needed to succeed in introductory physics
- Relate position, velocity, acceleration, and force and Interpret graphically
- Solve kinematic equations for an unknown quantity for motion
- Solve kinematic problems using concepts of conservation of energy and momentum
- Compare and relate linear and rotational dynamics
- Describe periodic motion
- Apply critical thinking to solve any introductory physics problems.

Important Information

Before starting this course, please review the following pages:

- Policies
- Technical Requirements and Skills
- Accessibility and Accommodation
- Academic Misconduct Statement

Course Prerequisites

This course has a prerequisite(s): Algebra and Trigonometry. Review the Course Catalog (http://onlineapps.fiu.edu/coursecatalog/) webpage for prerequisites information.

On-Campus Exams:

**THIS COURSE REQUIRES IN PERSON EXAMS.**

**Exam I** (IN-PERSON, ON-CAMPUS - Chapters 1 - 5), Saturday, May 18 (11:00 am – 12:30pm MMC, TBA)

**Exam II** (IN-PERSON, ON-CAMPUS Chapters 6 - 8) Saturday, June 01 (11:00am–12:30 pm MMC, TBA)

**Final Exam** (IN-PERSON, ON-CAMPUS Chapters 1-11, 13) Friday, June 14 (11:00am–1:00 pm MMC, TBA)

Online Exams/Quizzes:
There will be five online quizzes (each covering 2-3 chapters) during the semester. Generally, the quizzes will be available for two days (posted every other Friday and closed on Sunday). You will have 30-45 minutes to solve the problems and submit answers on a lockdown browser. The quizzes must be submitted within the three days window or you will receive a zero for that quiz. The lowest quiz grade will be dropped.

Proctored Exam Policy

Please visit our Student Proctored Exam Instructions webpage for important information concerning proctored exams, proctoring centers, and important forms. Keep in mind that the exams must be proctored in-person. ProctorU or HonorLock are not an option.

Textbook and Course Materials

![College Physics (10th Edition)](image)

Authors: Hugh D. Young, Philip W. Adams, & Raymond Joseph Chastain
Publisher: Pearson, 10th Edition, 2015
ISBN-10: 0321902785
You may purchase your textbook online at the FIU Bookstore or directly from Pearson.

Textbook and MasteringPhysics access code required.

Online Homework

MyLab Mastering Physics, Pearson

Register for the Course ID: chapagain21954

Registration Instructions.

Expectations of this Course

This is an online course, which means most of the course work will be conducted online. Expectations for performance in an online course are the same for a traditional course. In fact, online courses require a degree of self-motivation, self-discipline, and technology skills which can make these courses more demanding for some students.

Communication in this course will take place via the Inbox. Check out the Canvas Conversations Tutorial to learn how to communicate with your instructor and peers using Announcements, Discussions, and the Inbox.

Students are expected to:

- Review the how to get started information located in the course content
- Introduce yourself to the class during the first week
- Take the practice quiz to ensure that your computer is compatible with Canvas.
- Interact online with instructor/s and peers
Contact instructor via Canvas messaging  
Review and follow the course calendar  
Log in to the course at least two times per week  
Respond to messages within two days  
Submit assignments by the corresponding deadline

The instructor will:

- Log in to the course ten times per week  
- Respond to messages within two days (send message via Canvas only)

Discussion Forums

Keep in mind that your discussion forum postings will likely be seen by other members of the course. Care should be taken when determining what to post.

Introduce Yourself:

- Students will post their course self-introduction in this forum using the guidelines posted within the first week of class  
- Available dates (unlimited)

General Forum:

- Students may post general concerns related to the class  
- Students cannot post any assignment results/answers or related files  
- Available dates (unlimited)  
- Forums are not graded, it is another mean to help students via peer discussion

Quizzes

In order to mitigate any issues with your computer and online assessments, it is very important that you take the Practice Quiz from each computer you will be using to take your graded quizzes. For quiz duration, grading criteria and feedback response time, please review the important information about quizzes page.

Assignments

Online Homework Assignments:

- Students will be assigned problems to solve on the Mastering Physics site.  
- In addition to the problems that have credits (graded), there are practice problems. The practice problems (problems without credits) are for additional practice and answering them incorrectly will not affect your grades.  
- Each graded problem should be solved within a defined time limit. Passing that limit will result in a lower grade.  
- Scores and answers will be available immediately after you submit the homework.

Adobe Connect

Adobe Connect is an online meeting room where you can interact with your professor and fellow students by sharing screens, sharing files, chatting, broadcasting live audio, and taking part in other interactive online activities. We will be utilizing this tool to conduct meetings where the instructor will take student questions.

https://fiu.instructure.com/courses/42697/assignments/syllabus
Meetings will be available during several times during (preferably during the review week before each exam). Each meeting will be recorded on Adobe connect and if you are unable to join the meeting, you can watch the recording. Tentative meeting schedule is as follows:

Meeting 1: TBA (Orientation/course description/Ch 1)
(The dates are being updated)

Meeting 2: TBD (Wed) 12:15 pm - 1:15 pm
Meeting 3: TBD (Wed) 12:15 pm - 1:15 pm
Meeting 4: TBD (Wed) 12:15 pm - 1:15 pm

To view past recordings:

Login to Canvas, click on the Adobe Connect link on the left panel and select the meeting recording. You cannot view it by clicking the meeting invitation link. You must go through Adobe Connect link on the left.

Requirements for using Adobe Connect:

- Disable any window pop-up blocker.
- [Adobe Flash Player](http://get.adobe.com/flashplayer/) is required to successfully run your Adobe Connect meeting. You can [test your computer](http://online.fiu.edu/html/blackboardlearn/mastertemplate/adobe_connect/meetingtest) to make sure your computer and network connections are properly configured to provide you with the best possible Adobe Connect meeting experience.
- Use of a combination [headset and microphone](http://online.fiu.edu/app/webroot/html/blackboardlearn/mastertemplate/adobe_connect/#headset) with USB connection is recommended to ensure quality sound and reduce technical difficulties.

Reference [Adobe Connect (Tutorials & Help)](http://fiu.instructure.com/courses/42697/assignments/syllabus) to learn about the tool, how to access your meeting rooms and recordings.

Grading

Final grade will be calculated with the weights given in the following table.

Final % score = (25% each from Exam1 + 10% from HW + 15% from Quiz).

The final % score displayed on Canvas is not calculated correctly because it does not include the homework or the proper weighting in the quizzes. You can calculate your score by adding the contributions from each of the exams, homework, and quizzes. If the contributions from each exam, homework, and overall quiz score are each counted on a 100 point scale, this will result in the following.

Final % score = (0.25*Exam1 + 0.25*Exam2+ 0.25*Final + 0.10*HW + 0.15*Quiz).

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Chapters</th>
<th>Total Points Available</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1 (On-Campus)</td>
<td>1-4</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Exam 2 (On-Campus)</td>
<td>5-8</td>
<td>100</td>
<td>25%</td>
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### Course Requirements

<table>
<thead>
<tr>
<th>Chapters</th>
<th>Total Points Available</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Exam 3 (On-Campus)</td>
<td>9-11</td>
<td>100</td>
</tr>
<tr>
<td>Homework</td>
<td>1-11</td>
<td>100</td>
</tr>
<tr>
<td>Quizzes (4 out of 5 Online quizzes)</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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### Letter Grade Distribution Table

<table>
<thead>
<tr>
<th>Letter</th>
<th>Range%</th>
<th>Letter</th>
<th>Range%</th>
<th>Letter</th>
<th>Range%</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>90 or above</td>
<td>B</td>
<td>76 - 82.5</td>
<td>C</td>
<td>59 - 65</td>
</tr>
<tr>
<td>A-</td>
<td>87.5 - 90</td>
<td>B-</td>
<td>70 - 76</td>
<td>D</td>
<td>45 - 58</td>
</tr>
<tr>
<td>B+</td>
<td>82.5 - 87.5</td>
<td>C+</td>
<td>64 - 70</td>
<td>F</td>
<td>44 or less</td>
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### Course Calendar

#### Weekly Schedule (This may be updated as the course progresses)

<table>
<thead>
<tr>
<th>Date</th>
<th>Chapter</th>
<th>Mastering Physics HomeWork and Exams</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td></td>
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<tr>
<td>May 06 – 12</td>
<td>MT: 1.7, 1.8,</td>
<td>HW #1</td>
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<tr>
<td></td>
<td>WRF: 2.1 – 2.6</td>
<td>HW #2, Quiz 1</td>
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<tr>
<td>Week 2</td>
<td></td>
<td></td>
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<tr>
<td>May 13 – 19</td>
<td>MTW: 3.1 – 3.4</td>
<td>HW #3</td>
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<tr>
<td></td>
<td>RF: 4.1 – 4.6</td>
<td>HW #4, Quiz 2, Exam</td>
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<tr>
<td>May 18</td>
<td>EXAM I (ON-CAMPUS, Chapters 1 – 4 )</td>
<td>HW #5</td>
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<tr>
<td></td>
<td>May 18, Saturday 11:00am-12:30 pm MMC</td>
<td>HW #6, Quiz 3</td>
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<tr>
<td>Week 3</td>
<td></td>
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<tr>
<td>May 20 – 26</td>
<td>MTW: 5.1 – 5.4</td>
<td>HW #5</td>
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<tr>
<td></td>
<td>RF: 6.1 – 6.5</td>
<td>HW #6, Quiz 3</td>
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<tr>
<td>Date</td>
<td>Chapter</td>
<td>Mastering Physics HomeWork and Exams</td>
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<td>Week 4</td>
<td>TW: 7.1 – 7.5</td>
<td>HW #7</td>
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<td>May 27 – Jun 02</td>
<td>RF: 8.1 – 8.4</td>
<td>HW #8, Quiz 4, Exam</td>
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<tr>
<td>June 01</td>
<td><strong>EXAM II</strong> (ON-CAMPUS, Chapters 5 – 8 )</td>
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<td></td>
<td>June 1, Saturday 11:00am-12:30 pm MMC</td>
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<tr>
<td>Week 5</td>
<td>MTW: 9.1 – 9.5</td>
<td>Jun 3: last day to drop</td>
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<tr>
<td>June 03 – 09</td>
<td>RF: 10.1 – 10.6</td>
<td>HW #9, HW #10, Quiz 5</td>
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<tr>
<td>Week 6</td>
<td>M-R: 11.1 – 11.4</td>
<td>HW #11, Exam</td>
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<td>Jun 10 – 14</td>
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<tr>
<td>Week 6</td>
<td><strong>EXAM III</strong> (ON-CAMPUS, Chapters 9 - 11)</td>
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<tr>
<td>June 14</td>
<td>June 14, Friday, 11:00am-12:30 pm MMC</td>
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# Course Summary:

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
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