# **PHYSICS 1210 Conceptual Physics**

# **Fall 2016**

Lecture **Section 001**, Physics Room 104, TR 11:00 am – 12:20 pm

Professor: Vincent Lopes

Office: Physics Bldg., Room 209C Vincent.Lopes@unt.edu E-mail:

Office Hours: Tuesday 1:30 pm to 2:30 pm, Wednesday 10:00 am to 11:00 am, and by appointment

**Prerequisites**: Interdisciplinary Studies (Elementary Education) major status

**Text:** Conceptual Physics, Paul G. Hewitt, Addison Wesley

# **Topics and General Information**

Physics 1210 is a conceptual physics course designed for the elementary (K-8) education major. This course will guide you in a study of the basic concepts and principles describing our physical world. We will be covering the topics of force & motion, energy, temperature & heat, waves & sound, light, electricity & magnetism, atomic structure, and the laws that govern their nature and behavior. With a good grasp of the concepts of physics, you will gain a better understanding and appreciation of our physical world.

**Materials:** Mastering Physics Access Code for Conceptual Physics 12th edition

Physics 1210 Lab Manual

Calculator with scientific notation

**Attendance:** Attendance is mandatory for success in this course.

**Homework:** Homework is assigned weekly on-line thru: www.MasteringPhysics.com and is due at the assigned dates. No late homework will be accepted. Your homework grade average will be your earned percentage of the total possible points assigned.

You will complete one lab each week through the Physics Instructional Center (PIC, 2nd floor Laboratory: of this building). There are no makeup labs. You can access the lab syllabus, practice exams, & grades thru learn.unt.edu. There are 13 labs. You will receive 50 points for each completed lab, up to 100 points for each lab test, and up to 100 points for each of the two assigned lab reports. In order to take a lab test or submit a lab report, you must first have completed its corresponding lab. Overall lab grade is based on accumulated points (maximum available: 2150 pts). Your laboratory grade average will be your earned percentage of 1850 pts (lab grade cap: 100%).

When attending lab, be certain to bring your lab manual, pencil, calculator, student ID card, and close-toe shoes.

# **Exams**

There will be four test during the semester and a comprehensive final exam. Test and exam questions will be based on lecture material, material contained in the text and in the homework assignments. You must show all of your work on your exam papers for full credit. Questions pertaining to the grading of tests must be directed to the instructor in writing within one week after the exams are taken. There will be no makeup tests or exams.

## **Class Policies**

- 1. Students are to attend class and labs regularly as scheduled.
- 2. Students are to be prepared for class and labs (read/review assigned chapters prior to lecture and have homework completed from previous session)
- 3. Students are to be respectful of the instructor and other students. No vulgar language or rude behavior will be tolerated.
- 4. Pertinent questions should be directed to the instructor.
- 5. Patience with other student's questions is expected behavior.
- 6. Students are to have homework submitted at the time and location provided by the instructor.

# Grades

The course grades will be calculated as follows:

Homework	15%
Laboratory	20%
Average of Tests grades	.45%
Final Exam	20 %

Letter grades will be assigned on the basis of the following numerical scores: 90 - 100 = A

80 - 89 = B

Grades will NOT be rounded or scaled. 70 - - 79 = C

89.99 = B 69.99 = D

# **Testing Information**

- There will be a total of four tests and one final exam tests and exams will consist of multiple choice questions and problem solving questions.
- The three best test scores will be used to determine the average test grade (the lowest test grade will be dropped).
- A grade of 0 (zero) will be given for a missed test, or final exam.
  - There will be **NO** MAKE UP's for tests, or the final exam.
- Multiple answers to the same question will be marked wrong automatically.
- Answers / work deemed to be illegible by the instructor will be marked wrong.

**Topic Schedule**: The instructor reserves the right to amend the topic, test, and homework schedule.

Week	Date	Topics	
Wk -1	30-Aug	Introduction / Expectations/ Chapter 1 - Measurement	
	1-Sep	Chapter 2 - Newton's 1st Law	
Wk-2	6-Sep	Chapter 2 - continued & Chapter 3 - Linear Motion	
	8-Sep	Chapter 3 - continued	
Wk-3	13-Sep	Chapter 4 - Newton's 2nd Law & Chapter 8 Circular Motion	
	15-Sep	Chapter 4 - continued & Chapter 8 - Circular Motion	
Wk-4	20-Sep	cp Chapter 5 - Newton's 3rd Law & Chapter 6 - Momentum	
	22-Sep	Chapter 6 - continued	
Wk-5	27-Sep	Test # 1: Chap 2 - 6	
	29-Sep	Chapter 7 - Energy	
Wk-6	4-Oct	Chapter 7 - continued	
	6-Oct	Chapter 9 - Gravity & Chapter 10 Proj Motion	
Wk-7	11-Oct	Chapter 10 - continued	
	13-Oct	Chapter 11 - Atom & Chapters 12-14 Solids, Liquids, Gases	
Wk-8	18-Oct	Test # 2: Chap 7, 9-12	
	20-Oct	Chapter 15 - Temperature, Heat, and Expansion	
Wk-9	25-Oct	Chapter 16 - Heat Transfer and Chapter 17 - Change of Phase	
	27-Oct	Chapter 19 - Vibrations and Waves	
Wk-10	1-Nov	Chapter 20 - Sound & Chapter 21 - Musical Sounds	
	3-Nov	Chapter 22 - Electrostatics	
Wk-11	8-Nov	Test # 3: Chapters 15 - 17, 19 - 21	
	10-Nov	Chapter 23 - Electric Current	
Wk-12	15-Nov	Chapter 24 - Magnetism	
	17-Nov	Chapter 26 - Properties of Light	
Wk-13	22-Nov	Chapter 27 - Color	
	24-Nov	Thanksgiving Holiday - No Class	
Wk-14	29-Nov	Chapter 28 - Reflection & Refraction	
	1-Dec	Chapter 28 - continued	
Wk-15	6-Dec	Test # 4: Chapters 22 - 24, 26 - 28	
	8-Dec	Open Day	
Wk-16	13-Dec	Final Exam from 10:30 am to 12:30 pm	

# **MasteringPhysics®**

# **Student Registration**

In this course you will be using MasteringPhysics<sup>®</sup>, an online tutorial and homework program that accompanies your textbook. (*If you have joined a MasteringPhysics course before and can still log in*: Save time by following the guide for joining another course found under the STUDENT heading at <a href="https://www.masteringphysics.com">www.masteringphysics.com</a> > Tours & Training > Getting Started instead of using the steps below.)

# Physics

**Hewitt**Conceptual Physics,
12/e

## What You Need:

- ✓ A valid email address
- √ A student access code

(Comes in the Student Access Code Card/Kit that may have been packaged with your new textbook or that may be available separately in your school's bookstore. Otherwise, you can purchase access online at <a href="https://www.masteringphysics.com">www.masteringphysics.com</a>.)

- ✓ The ZIP or other postal code for your school: \_\_76203
- ✓ A Course ID: <u>MPLOPES1210001FALL2016</u>

# 1. Register

- Go to www.masteringphysics.com and click Students under Register.
- To register using the student access code inside the MasteringPhysics Student Access Code Card/Kit, select Yes, I have an access code. Click Continue.

-OR- Purchase access online: Select **No, I need to buy access**. If asked, select our textbook *Hewitt Conceptual Physics* 12/e, and whether you want access to the eText or not. Follow the on-screen instructions to purchase access using a credit card. The purchase path includes registration, but the process is a bit different from the steps printed here.

- License Agreement and Privacy Policy: Click I Accept to indicate that you have read and agree to the license agreement and privacy policy.
- Select the appropriate option under "Do you have a Pearson Education account?" Continue to give the requested
  information until you complete the process. The **Confirmation & Summary** page confirms your registration. This
  information will also be emailed to you for your records. You can either click **Log In Now** or return to
  www.masteringphysics.com later.

## 2. Log In

- Go to www.masteringphysics.com.
- Enter your Login Name and Password that you specified during registration and click Log In.

## 3. Join Your Instructor's Online Course and/or Open Self-Study Resources

Upon first login, you'll be asked to do one or more of the following:

- **Join a Course** by entering the **MasteringPhysics Course ID** provided by your instructor. If you don't have a Course ID now, you can return to join the MasteringPhysics course later. When you join a course, you may also be asked for a Student ID (follow on-screen instructions).
- Explore the Study Area or Launch Your eText, if these resources are available for your textbook.

# To Access MasteringPhysics Again Later

Simply go to <a href="www.masteringphysics.com">www.masteringphysics.com</a>, enter your Login Name and Password, and click Log In.

After you have joined a course: You can open any assignments from the Assignments Due Soon area or from the Assignments page. For self-study, click eText or Study Area, if these options are available.

## Support

Access Customer Support at <a href="https://www.masteringphysics.com/support">www.masteringphysics.com/support</a>, where you will find:

- System Requirements
- Answers to Frequently Asked Questions
- Registration Tips & Tricks video
- Additional contact information for Customer Support, including Live Chat

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<u>Homework Schedule</u>: The instructor reserves the right to amend the topic, test, and homework schedule.

Home Work	Due Date
Math Review (handout)	9/8/16 (in class)
Intro to MP	9/9/2016
MP: Chaps 2 & 3a	9/9/2016
MP: Chaps 3b & 4	9/16/2016
MP: Chap 8	9/16/2016
MP: Chap 5	9/23/2016
MP: Chap 6	9/23/2016
MP: Chap 7	9/30/2016
MP: Chaps 9 & 10	10/7/2016
MP: Chaps 11 - 14	10/14/2016
MP: Chap 15	10/21/2016
MP: Chaps 16 & 17	10/28/2016
MP: Chaps 19 - 21	11/4/2016
MP: Chaps 22 & 23a	11/11/2016
MP: Chap 23b	11/18/2016
MP: Chap 24	11/18/2016
MP: Chap 26	11/25/2016
MP: Chap 27	11/25/2016
MP: Chap 28	12/2/2016

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.

# UNT's policy on Academic Dishonesty can be found at:

http://www.vpaa.unt.edu/academic-integrity.htm

<u>**Drop information**</u> is available in the schedule of classes at: <u>http://registrar.unt.edu/registration/schedule-of-classes</u>

The Student Perceptions of Teaching (SPOT) is a requirement for all organized classes at UNT. This short survey will be made available to you on-line at the end of the semester and will provide you with an opportunity to provide feedback to your course instructor. SPOT is considered to be an important part of your participation in this class. In addition to SPOT, there will be a brief in-class course survey during the last two weeks of the semester.

For the Fall 2016 semester you will receive an email from "UNT SPOT Course Evaluations via *IASystem* Notification" (no-reply@iasystem.org) with the survey link. Please look for the email in your UNT email inbox. Simply click on the link and complete your survey.

After logging in to the <a href="my.unt.edu">my.unt.edu</a> portal, students can access the SPOT survey site by clicking on the SPOT icon. A list of their currently enrolled courses will appear. Students complete each course evaluation independently. During the long terms, the SPOT is open for students to complete two weeks prior to final exams. During the summer terms, the SPOT is open for students to complete six days preceding their final exam. See <a href="SPOT Calendar">SPOT Calendar</a> for specific dates and deadlines.