

GENERAL COURSE INFORMATION

Course Lecturer: Professor P.K.Aravind (paravind@wpi.edu), OH212B, X-5559.

Course Coordinator: Professor T.H.Keil (thkeil@wpi.edu), OH105, X-5419.

All questions concerning registration, exam scheduling, Mastering Physics, absence from classes and other organizational matters should be addressed to Prof.Keil.

Conference Instructor: Each of you has one. He/she will provide you with their contact information at your first conference meeting.

Lab Coordinator: Frederick L.Hutson (flh@wpi.edu), OH217, X-5527.

Please see him about missed labs, late lab reports and all other questions about labs.

Text: UNIVERSITY PHYSICS with MODERN PHYSICS with MASTERING PHYSICS (12th Edition) by H.D.Young and R.A.Freedman, (Addison-Wesley, 2007). (The same text that was used in PH 1110).

Course coverage: Selections from Chs.21-29, as explained in Study Guides 1-4.

Objectives: The specific objectives you are expected to master are collected together in a document entitled Course Objectives. Both the Study Guides and the Calendar will refer to these objectives, so make sure you are familiar with them.

MyWPI site and Course Webpage:

Each of you will have access to the MyWPI site for the conference you are registered in. If you log in to the site and look at the navigation bar on the left, you will see the link "PH1120 Web Site". Clicking on it will bring you to the website for the course, where you will all documents for it (including this one) posted. If you didn't get a handout, or you slept through lecture (either in the comfort of your dorm or in our padded chairs) and now want to know what you missed, this is the place to look.

Course organization:

- The course is divided into four parts, each with a **Study Guide** and an **Exam**. Each **Study Guide** will spell out the material covered in one part of the course and each **Exam** will test you on the material in the Study Guide leading up to it. However you should bear in mind that the material in the four study guides is thematically related, and that the later material builds on what came before.
- You have to do **Homework** regularly and submit it for grading. There are two types of homework: **Mastering Physics**, which must be done online, with one assignment being due practically every lecture day (except Exam days), and **Summary Homeworks**, to be submitted in conference before each exam.
- There is a **Laboratory** that is part of this course. You must do all the labs and submit all the required lab reports in order to pass the course. **Labs will begin on Thursday, Oct 29.**

Examinations are scheduled during regular class hours as follows:

	Date	Secs.1-6	Secs.8-14
EXAM 1	Friday, Nov 6	10:00 – 10:50 am	1:00 – 1:50 pm
EXAM 2	Friday, Nov 20	10:00 – 10:50 am	1:00 – 1:50 pm
EXAM 3	Friday, Dec 4	10:00 – 10:50 am	1:00 – 1:50 pm
EXAM 4	Wednesday, Dec 16	10:00 – 10:50 am	1:00 – 1:50 pm

You will be told your exam room before each exam. Occasionally, students may need to miss a scheduled exam. If you notify Prof. Keil at least twenty-four hours before the exam, there will be no penalty. Without this advance notice, the penalty could be up to 10% of the exam grade. The penalty will be waived only in exceptional circumstances.

Grade: Your course grade will be determined as follows:

Exams (65%) – averaged over 4 exams

Mastering Physics Homework (10%)

Summary Homeworks (5%)

Conference Grade (10%) – to be determined by your conference instructor

Lab (10%) – determined by all the lab reports

Homework *Mastering Physics* assignments, to be completed on the web, must be filed by Midnight on the due day. Detailed instructions for doing the *Mastering Physics* assignments can be found in the homework section of Study Guide 1. The four Summary Homeworks will be distributed later and also posted on the course website. Each is to be submitted in conference on the day indicated.

Solutions to suggested many representative problems will be posted on the course webpage. Solutions to all *Mastering Physics* assignments can be looked up on the site itself shortly after the due date.

Study Guides are your most detailed source of information about the course, outside of lecture. Make sure you understand each of the objectives spelt out in the study guides, and test your understanding by solving as many of the assigned problems as you can. Don't get discouraged if you can't solve some problems, or find yourself getting confused about concepts you thought you understood quite well – that happens to even the best students. Take advantage of your conference instructors and the lecturer in overcoming these difficulties.

Labs begin Thursday, Oct 29. The lab schedule is posted on the door of the lab room, OH211, and also on the course webpage under the link "Lab Information". Please look up the schedule for the dates and times of all your labs. You should also be familiar with the lab GROUND RULES, which are also posted on the lab door as well as the course webpage. **Ignorance of these rules cannot be used as an excuse for failure to comply with them.**

Helpful tips

- Our 7-week terms move fast. You want to make sure you keep up with all the work and don't fall behind. Making up for lost time is not easy.
- If you're a graduating senior and need to pass the course, see your conference instructor on day one and let him/her know. Attend conference regularly, do all your work and get the extra help you need. If you let us know in week five how desperately you need to pass the course, there's not much we can do to help.
- Every lecture introduces at least one major law or concept, and sometimes more than one. Research has shown that most people are unable to grasp a difficult idea after just one hearing. The way to overcome this hurdle is to make a number of passes through the same concept: read about it in the text before lecture, listen to the explanations in class, and go over the material again in conference and on your own.
- **Active learning** means that you question what you have studied, see if you can apply your knowledge to solve problems, connect what you have learned with real world applications, and relate the material studied here to that in other courses, to mention just a few items. Your conference instructor can help you be an active learner in this course, but most of the effort and initiative have to come from you.
- On top of lecture, conference and lab, you should devote a considerable amount of your time to solving problems. Doing the suggested problems in the text, and checking your answers against the ones in the book, is one excellent way of getting feedback on how well you are understanding the subject and mastering the course objectives.
- Look up the solutions to problems posted on the course website. Even if you've done a problem right, it's nice to learn about shorter or better ways of doing it.
- **I (Prof.Aravind) will hold open office hours on Tue from 1-3pm and Thu from 11am-12pm. I will be happy to answer any questions, solve problems and generally help in any way I can. I look forward to getting to know many of you through these sessions.** But please address logistical matters (such as missed exams or labs) to the people concerned, Prof.Keil or Mr.Hutson.
- The **Physics Helpdesk**, run by Physics graduate students, operates during the day in Olin 118. Hours of operation will be posted on the door of Olin 118.
- The **Math And Science Help** program (**MASH**) schedule will be posted on the course webpage and also on the door of the Physics Lounge (OH118).
- **Other students** in the class can be an excellent source of help. It is a good idea to study and work together in small groups. You should, however, write up the solutions to all your homework problems on your own. You should be aware of WPI's policies on Academic Integrity and adhere to them.
- Feedback about the course, and how we can improve it, can be given to the course lecturer (Prof.Aravind) or course coordinator (Prof.Keil) at any time. These suggestions do not have to wait till the end of the course!