Physics 201 Fall 2022 Jayanth Banavar

Syllabus

*College Physics: A Strategic Approach eText*

We will cover Chapters 1-10 in this course.

In this course, you will use an eText and the accompanying online materials every day. **You will need to buy a Registration Code for the eText that is bundled with Mastering Physics (see below) as soon as possible.** You can make purchase online at the UofO Duckstore.

*College Physics: A Strategic Approach, 4th Edition*

Authors: Knight, Randall; Jones, Brian; Field, Stuart

A message from the authors:

"This text expands its focus from how mixed majors students learn physics to focusing on why these students learn physics. The authors apply the best results from educational research and Mastering™ Physics metadata to present basic physics in real world examples that engage students and connect physics with other fields, including biological sciences, architecture, and natural resources. From these connections, students learn in research-driven ways with a goal in mind to increase the understanding of why they are taking the course and how it applies to other areas.

Extensive new media and an interactive Pearson eText pique interest while challenging misconceptions and fostering critical thinking. Explanations, and problems use real data from research to show physics at work in relatable situations, and help students see that physics is the science underlying everything around them. *A Strategic Approach, 4th Edition*, encourages today’s students to understand the big picture, gain crucial problem-solving skills and come to class both prepared and confident."

Chapter Layout

*  Each chapter has been an introduction to some of the fundamental ideas about motion and some of the basic techniques that you will use.
  o  Each new chapter depends on those that preceded it.
Each chapter begins with a chapter preview that will let you know which topics are especially important to review.

The last element in each chapter will be an integrated example that brings together the principles and techniques you have just learned with those you learned previously.

**Important Details about Exams**

Engaging in Academic Dishonesty is wrong and there will be consequences. You are to complete all work by yourself. For exams, this means no communication with other students, no message boards or other input from humans or machines -- you are permitted an equation sheet (prepared by you), your calculator, and you should only have Canvas open in your browser. Students not adhering to these rules will receive a failing grade (F) for the course. Proceeding with exams indicates your consent to these terms.

We plan to hold two on-line mid-term exams as well as one on-line final exam. All three exams will have multiple choice questions. Questions will appear one at a time, and they will be locked after the question is answered or skipped. You are unable to return to earlier questions and seek to modify your earlier answers. Note that there is no advantage in skipping a question because there is no penalty for a wrong answer. This locking feature has become necessary because it is easy to use certain commercial websites to find answers to a range of multiple choice questions.

The two on-line midterm exams will start at 17:00 Pacific Time on Monday October 17 (covering Chapters 1-3) and Monday November 7 (covering Chapters 1-6) and will run for an hour and each have 15 questions. The on-line final exam with 20 questions will be 90 minutes long (covering Chapters 1-10) and will start on Monday December 5 at 17:00 Pacific Time. You will not be required to be in a Zoom Session while taking the exam(s). We will have a Drop-In center Zoom Room during regular exam hours to address any questions.

To promote learning and to allow for potential score improvement, every student will be required to take each of the first two exams twice. The questions are selected randomly from a question pool and so the second attempt will be like but not identical to the first. We will use the mean score for the two attempts for your grade. The second attempt will have the same time limit as the first but there will be a flexible window of one week beginning 6am Monday October 24 for Exam 1 and 6am Monday November 14 for Exam 2 for starting the second attempt.

Please be sure to have a couple of distinct browsers accessible for the exam. There have been reports of difficulties with the Safari browser in viewing figures associated with some questions.
Students with documented accommodations with the Accessible Education Center (AEC) will be provided appropriate extra time.

Please contact Jayanth Banavar (banavar@uoregon.edu) AND Ben Kauffman (bbk@uoregon.edu) before the end of the second week of class if you have any scheduling questions about the exams. It will not be possible to accommodate special times or time conflicts after that point.

Important Details about Assignments

Below we provide a short description of the types of assignments we will have in this class.

Tutorial Sections

The Tutorial Section is designed to provide interactive practice on how to solve physics problems. While working with your peers in small groups, you will apply the concepts covered in lecture sessions to real-world situations. The Tutorial Sections are guided with assistance from members of the Teaching Team. There are 8 Tutorials in the term - the only two weeks with no Tutorials are the weeks of November 7 (Veterans Day week) and November 21 (Thanksgiving Week). Tutorials will be held on Week 1 of the term.

Readings

The average expected reading is at least 1 chapter of the book each week. Taking notes, writing down equations, and attending lecture sessions will help you learn the material. Having your reading and video notes available during the lecture sessions will help you understand the physics better. Reorganizing your notes after reading and lecture sessions can also help you learn the material in a deeper way.

Pre-lecture Video Assignments in Mastering Physics

They are reasonably short to keep your attention. There are questions within the videos although that is not where the grade comes from. There is a graded question after you have competed the video. You will automatically lose 50% credit for late submissions. You are able to take the assignment two times and keep the best score; you must complete the entire assignment before starting a new attempt.
Dynamic Study Modules in *Mastering Physics*

The purpose of these is to deepen the understanding of the physics concepts. These are topic-based assignments. The **Dynamic Study Modules** continuously assess your performance and activity to provide personalized questions/content in real-time and target each student's particular strengths and weaknesses.

**Homework in Mastering Physics**

These contain traditional homework questions. Check the specific due dates of the assignments in Mastering Physics. Please have your computer clock set for Pacific Time when doing online homework provided by *Mastering Physics* so you do not get homework counted as late. *Mastering Physics* uses your **computer time code** for homework submissions. You will automatically lose 50% credit for late submissions.

**Grade Weighting**

<table>
<thead>
<tr>
<th>Grading Area</th>
<th>Weight Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Lecture Videos</strong></td>
<td>5% Located in <em>Mastering Physics and CANVAS</em></td>
</tr>
<tr>
<td><strong>Homework</strong></td>
<td>20% Located in <em>Mastering Physics and CANVAS</em></td>
</tr>
<tr>
<td><strong>Dynamic Study Modules</strong></td>
<td>15% Located in <em>Mastering Physics and CANVAS</em></td>
</tr>
</tbody>
</table>
8% Graded on attendance and participation in 8 tutorials.

2% There are 27 lectures in the term. You will be permitted to miss 4 of the lectures without any penalty.

15% each (total 30%) - for each exam, the mean score of two attempts will be used.

20%

- A- To A+ 91% - 100%
- B- To B+ 80% - 90%
- C - To C+ 64% - 80%
- Pass (Lowest C-) 64%
- D/NP 55% - 63%
- F/NP Below 55%

The above is merely a rough guess of the score-grade translation. In practice, a statistical analysis will be carried out with a median grade corresponding to a high C+/low B-grade. Special emphasis will be placed on fixing the borders between grades to ensure that students at the border are not penalized unfairly. It is important for you to try hard and enjoy learning.

Time Commitment

According to the University of Oregon Student Engagement Inventory, this course is designed to engage you in learning for about 12 hours each week for 10 weeks. The
following are suggestions on how much time you should expect to spend on each activity in the course on a weekly basis:

Reading the textbook = 3 hours
Pre-Lecture videos (watching and answering questions in *Mastering Physics*) = 0.5 hours
*Mastering Physics* Homework, Tasks, and Dynamic Study Modules = 3.5 hours
Lecture Sessions = 3 hours
Tutorial Session = 1 hour
Checking, thinking about, and acting on instructor and peer feedback so that you can improve your understanding = 1 hour

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**Fall 2022 PHYS 201 Schedule**

**PHYS 201 Fall Schedule**

Note that this schedule will be updated as needed. Check back often.

For CRN 11436, Lecture 1000-1050AM 100 Willamette
For CRN 11437, Lecture 1200 noon-1250PM 100 Willamette
For CRN 11438, Lecture 200PM-250PM 100 Willamette

For tutorial schedule, please check your canvas page.

The plan is to cover one chapter each week. Do please register for Mastering Physics as soon as possible, and before class Wednesday 9/28. Check Mastering Physics for due dates.

Two on-line midterm exams will start at 17:00 Pacific Time on Monday October 17 (covering Chapters 1-3) and Monday November 7 (covering Chapters 1-6) and will run for an hour and each have 15 questions. The on-line final exam with 20 questions will be 90 minutes long (covering Chapters 1-10) and will start on Monday December 5 at 17:00 Pacific Time.

Every student will be required to take each of the first two exams twice. The questions are selected randomly from a question pool and so the second attempt will be similar to but not identical to the first. We will use the mean score for the two attempts for your grade. The second attempt will have the same time limit as the first but there will be a flexible window of one week beginning 6am Monday October 24 for Exam 1 and 6am Monday November 14 for Exam 2 for starting the second attempt.
Students with documented accommodations with the Accessible Education Center (AEC) will be provided appropriate extra time.

### Ways to Communicate

Our class will communicate through our Canvas site using these tools:

#### Announcements

Be sure to keep up with Announcements in Canvas since things can change over the course term.

Announcements are archived in the Announcements feature on Canvas and can be automatically forwarded to your UO email, and can even reach you by text. Check and adjust your settings under Account > Notifications.

#### Office Hours

Refer to the [Contact List and Instructor Information](#) for office hours and email information. These may be modified as the course proceeds.

#### Lecture Sessions

There are lecture sessions on MWF from 10:00–10:50 for CRN 11436, 12:00-12:50 for CRN 11437, and 14:00-14:50 for CRN 11438, all in 100 Willamette. There will be no Friday lectures on November 11 and November 25. The first lecture will be on Tuesday September 28. The last lecture of the term will be on December 2.

#### Tutorial Sections

The Tutorial Sections provide an invaluable opportunity for small group learning with your instructional team during the designated time. There will be 8 tutorials in the term with no tutorials the weeks of 11/7 (Veterans Day week) and 11/21 (Thanksgiving week).

#### Appointments by Email

You can also schedule an appointment. Just send an email to any member of your instructional team to set up a time. You can contact the [Canvas support page](#) for help and also [Mastering Physics help](#) if you are having issues in those areas.
Technical Requirements

Log into canvas.uoregon.edu using your DuckID to access our class. If you have questions about accessing and using Canvas, visit the Canvas support page. Canvas and Technology Support also is available by phone or live chat: 541-346-4357 | livehelp.uoregon.edu

If you face Internet access challenges, companies are offering free access during this challenging time. To learn more about options visit Information Services' web page on going remote.

The lectures and tutorials will be in-person. The three exams will be on-line. For the exams and for answering an attendance question on Canvas during the lecture, you will need a computer (and webcam and microphone).

Academic Integrity

The University Student Conduct Code defines academic misconduct, which includes unauthorized help on assignments and examinations and the use of sources without acknowledgment.

You are to complete all work by yourself. For exams, this means no communication with other students, no message boards or other input from humans or machines -- you are permitted an equation sheet (prepared by you), your calculator, and you should only have Canvas open in your browser. Students not adhering to these rules will receive a failing grade (F) for the course.

Proceeding with exams indicates your consent to these terms.

Accessibility

The University of Oregon is working to create inclusive learning environments. Please notify us if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center at 541-346-1155 or uoaec@uoregon.edu.

Guidelines for Class Participation

Class Recommendations
• Do bring questions to Tutorial sessions and office hours.
• Practice learning science in a scientific investigative manner that is cross cutting and will refine transferable skills to other courses and future exams.
• Engage in group discussions that widens your perspectives and deepens your knowledge and ability to collaborate with your peers.
• Affirm your hopefulness and readiness for the future by continuing to dedicate yourselves to learning, finding and answering questions, practicing skills, being patient and giving, and examining subjects that give you context to understand this moment, a time of great challenge.

As the university community adjusts to teaching and learning in the context of the COVID-19 pandemic, course requirements, deadlines, and grading percentages are subject to change. We will be mindful of the many impacts that the unfolding events and other circumstances may be having on you. We encourage you to talk with us about what you are experiencing so we can work together to help you succeed in this course.

Interact Professionally:

• Use correct spelling, grammar, and style for academic and professional work.
• Use discussions and activities as opportunities to practice the kind and quality of work expected for assignments.
• Seize the chance to learn from others and develop your interpersonal skills; Mindful listening and awareness of one’s own tendencies (e.g. Do I contribute too much? Too little?) are helpful.

Expect and Respect Diversity: All classes at the University of Oregon welcome and respect diverse experiences and perspectives. What is not welcome are behaviors or contributions that undermine, demean, or marginalize others based on race, ethnicity, gender, sex, age, sexual orientation, religion, ability, or socioeconomic status. We will value differences and communicate disagreements with respect.

Help Everyone Learn: Our goal is to learn together by learning from one another. As we move forward during this challenging time, it is important that we work together and build on our strengths. Please do not hesitate to contact us to ask for assistance or offer suggestions that might help you learn better.