

Course:	PHY 102 Sections 5&6
Instructor	Dr. N. Christensen
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Phone:	(309)438-5502
Office:	MLT 312D
Office Hours:	Right after class on Tuesday or by appointment
MasteringPhysics:	http://www.masteringphysics.com Course ID: CHRISTENSEN2014PHY102
Lecture:	TR 9:35-10:50 in MLT 214
Lab:	T-F 9:00AM-4:00PM in MLT 202 & 204
Required Materials:	• Lab Manual: Hands on Activities for Physics 102 • MasteringPhysics with included electronic textbook: Conceptual Physical Science, 5e by Hewitt/Suchocki/Hewitt
Homework:	On MasteringPhysics One assignment per class
Exams:	2 Midterms and 1 Final All are comprehensive

MasteringPhysics

Both the textbook and all homework will be done on MasteringPhysics. You will need access to MasteringPhysics immediately, since your first MasteringPhysics assignment will be due at the beginning of the very next class. You will have MasteringPhysics assignments due at the beginning of every class. You do not need to purchase a separate print copy of your textbook. An electronic version comes with MasteringPhysics.

The main benefit of doing homework online is that the homework software will give immediate feedback, including whether the homework problem was answered correctly. In some cases, it will also give guidance for what you may have done wrong. If you get the answer incorrect, try to understand why so that you will get it correct if it appears on an exam. If it is allowed for that problem, redo it until you get it correct. This is one of the best ways to prepare for the exams (along with reading the textbook for understanding and discussing the material with other students).

The instructions to register for MasteringPhysics are on a separate handout. Ask another student for a copy if you did not receive it. It can be found on MasteringPhysics under "Course Materials".

Clickers

Our class will be using “clickers”, or more technically the Turning Point technology system. Each student should purchase a clicker at the bookstore and bring it to *every* lecture. They will be used to answer questions during class. This will help you stay more focused on the lecture material and help me ascertain whether the class as a group understands a topic before moving on. Your clicker must be registered. See the “Student Guidelines for Clickers” handout. You can also find it on MasteringPhysics under “Course Materials” if you did not receive it.

Free Tutoring

The Julia N. Visor Academic Center provides free weekly tutoring sessions for this course and many other general education courses. To sign up, call (309) 438-7100. The location of the Julia N. Visor Academic Center is Vrooman 012 (Vrooman is between the Manchester and Hewett dorms). Their hours are Mon-Thurs, 8:00 a.m.-9:00 p.m., Fri, 8:00 a.m.-4:30 p.m., Sun, 4:00 p.m.-8:00 p.m. You can find them on the web at www.UniversityCollege.IllinoisState.edu/tutoring.

Grading

Your grade will be based on exams, homework, laboratories and in-class “clicker” questions in the following proportions:

- 48% Exams (16% for each of MT I, MT II and Final)
- 30% Homework (1% per homework assignment)
- 15% Labs (1.5% per lab)
- 7% In-Class Clicker Questions

Your letter grade will be determined according to the following percentages of the total possible scores:

- 85% A (normally starts at 90%)
- 75% B (normally starts at 80%)
- 65% C (normally starts at 70%)
- 55% D (normally starts at 60%)

You are required to complete all assignments and laboratories and to attend all exams. Only very good and documented excuses will be allowed for missing exams. You must discuss this with the instructor **as soon as possible** in such a situation and a makeup will be planned. No scores will be dropped. Instead, the threshold for each letter grade is 5% lower than normal (an A typically begins at 90% and so on) allowing for unforeseen problems. Don't waste this 5%. Only miss in case of emergencies.

Homework

A combination of continuously reading the textbook for understanding and doing a lot of homework problems is the best way to master the material in this course and therefore do well on the exams. There will be a homework assignments due at the beginning of every class. The majority of the problems will be based on material we have already covered in class. There may also be a small number of prelecture problems that help you start thinking about the material before it is covered in class. Furthermore, there may be a small number of problems from previous chapters to help you keep up on the cumulative material and do well on the exams.

Discussing homework problems with other students is ok, even good if you are stumped. But, remember that it is up to you to make sure you master each problem so that you will do well on the exams (you can not get help on the exams). You can do most problems multiple times. You should continue to do each problem until you get it correct. Only your first attempt at true/false

and multiple choice questions is given credit. However, other types of questions allow credit even after the first attempt. Furthermore, after you have completed the assignment and after the due date for the assignment, you may redo the assignment without affecting its grade as practice for the exams.

Exams

All the exams will be comprehensive. The first exam will cover the Prologue and Chapters 1-4. The second exam will mainly cover Chapters 5-8 with a small number of questions from the Prologue and Chapters 1-4. The final exam will mainly cover Chapters 10-12 and 26-28 with a smaller number of questions from the Prologue and Chapters 1-8. The majority of the exam questions will come from the book. They may have appeared on homework assignments, but not necessarily.

Midterm exams are on the Tuesday following a week without a laboratory. This is done so you can spend extra time preparing for the exam. The homework assignment due on exam day will be a cumulative assignment with questions similar to those on the exam to help you prepare. There may also be some questions based on the laboratories.

Laboratories

There will be ten laboratories spread throughout the semester (see the tentative schedule below). You can do the lab any time it is open to students during the week. I highly recommend you do the lab early in the week to avoid running out of time. You must bring your activity manual “Hands on Activities for Physics 102” to the laboratory. The normal hours of operation of the laboratory are T-F 9:00AM-4:00PM. The lab closes promptly at 4PM, so arrive with plenty of time to finish before it closes. The location of the labs is MLT 202 & 204. There are no labs on the week directly preceding exams to give you more time to prepare for the exams.

Academic Integrity

Although it is ok to discuss certain aspects of this course with other students, the final work on all assignments and exams must be your own. Homework and laboratories can be done in groups according to class policies but the final homework input and submission using MasteringPhysics and the final lab report must be the work of the student claiming credit for it. Additionally, exams must be done by the student alone and with no help from anyone other than the instructor. Any violations will be dealt with according to university policy.

Tentative Schedule

	Tuesday 9:35-10:50	Thursday 9:35-10:50	Lab T-F 9AM-4PM
Week 1 Aug. 18-22	Prologue	Ch. 1 Motion	
Week 2 Aug. 25-29	Ch. 1 Motion	Ch. 2 Newton's Laws	
Week 3 Sept. 1-5	Ch. 2 Newton's Laws	Ch. 3 Momentum & Energy	A2-GA Graphical Analysis
Week 4 Sept. 8-12	Ch. 3 Momentum & Energy	Ch. 4 Gravity, Projec. & Satel.	A5-CI Computer Interface
Week 5 Sept. 15-19	Ch. 4 Gravity, Projec. & Satel.	Ch. 5 Fluid Mechanics	
Week 6 Sept. 22-26	Exam 1 Prol. - Ch. 4	Ch. 5 Fluid Mechanics	A3-FF Free Fall
Week 7 Sept. 29-Oct. 3	Ch. 6 Thermodynamics		A4-PM Projectile Motion
Week 8 Oct. 6-10	Ch. 7 Heat Transfer & Change of Phase		A6-NSL Newton's 2nd Law
Week 9 Oct. 13-17	Ch. 8 Electricity		A7-CE Conservation of Energy
Week 10 Oct. 20-24	Ch. 10 Waves & Sound		
Week 11 Oct. 27-31	Exam 2 Chs. 5-8 + Prol.-Ch. 4	Ch. 11 Light Waves	B3-CLE Coulomb's Law
Week 12 Nov. 3-7	Ch. 12 Atoms		B1-WA Wave Addition
Week 13 Nov. 10-14	Ch. 26 Solar System		B2-WNL Wave Nature of Light
Week 14 Nov. 17-21	Ch. 27 Stars & Galaxies		D1-LFA Light from Atoms
Nov. 24-28	Thanksgiving Break		
Week 15 Dec. 1-5	Ch. 28 Structure of Space & Time		
Dec. 8-17	Final Chs. 10-12, 26-28 + Prol.-Ch. 8		

All dates are tentative.

Disability

Any student needing to arrange a reasonable accommodation for a documented disability should contact Disability Concerns at 350 Fell Hall, (309)438-5853, on the web at DisabilityConcerns.IllinoisState.edu.

Counseling

Life at college can get very complicated. Students sometimes feel overwhelmed, lost, experience anxiety or depression, stumble with relationship difficulties or diminished self-esteem. However, many of these issues can be effectively addressed with a little help. Student Counseling Services (SCS) helps students cope with difficult emotions and life stressors. Student Counseling Services is staffed by experienced, professional psychologists and counselors, who are attuned to the needs of college students. The services are FREE and completely confidential. Find out more at Counseling.IllinoisState.edu or by calling (309) 438-3655.

Absence Due to Bereavement

Students are eligible for up to five (5) consecutive days (not including weekends or holidays) of excused absence in the event of a death of a spouse, domestic partner, parent, child, grandparents, grandchild or sibling, uncle, aunt, niece, nephew, first cousin, in-law, or step-relative. The student is responsible for notifying the Dean of Students Office (DoS) **prior** to their absence. The DoS will communicate the absence and bereavement policy to the student's course instructors. Upon receiving proper documentation regarding the death and relationship, the DoS will provide this documentation to each of the course instructors, if requested. Upon notification of the absence and receipt of proper documentation, each faculty member shall excuse the student from class and provide an opportunity to complete missed exams, quizzes and other required work. Ultimately, the student is responsible for all material covered in class and must work with each individual professor as soon as they return to complete any required work. In the event that a death occurs to a family member or friend that is not specifically covered by the policy, students can communicate the circumstances to the DoS to determine on a case by case basis if it is covered by this policy: (<http://policy.illinoisstate.edu/students/2-1-27.shtml>) Contact us at (309) 438-2008 if you would like to make use of either of these services.

Community Rights and Responsibilities

Students are expected to behave in a manner consistent with being in a professional environment. Open discussion and disagreement are encouraged in a respectful manner. Open hostility, rudeness, and incivility are discouraged and will result in appropriate action. Mechanical disruptions (cell phones, pagers, electronic toys, music players, etc.) are also strongly discouraged. Students acting in a disruptive or uncivil manner may be dismissed from the class for the remainder of the class period. If necessary, referrals may also be made to Community Rights & Responsibilities for violations of the Code of Student Conduct.