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Office Hours	Monday, Wednesday, Friday 10:00 a.m. – noon; Tuesday, Thursday 1:00 p.m. – 3:00 p.m.
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PH2100 Website	http://www.phy.mtu.edu/~weidman/ph2100/
Blackboard	https://courses.mtu.edu
MasteringPhysics	http://www.masteringphysics.com

INTRODUCTION

The Fundamental Questions

Questions are crucial to learning. It's through the process of inquiry that we construct our knowledge of the natural world. We will address the following three fundamental questions in our study of classical mechanics:

1. How do we describe motion?
2. What are the causes of changes in motion?
3. What properties of a system of particles do not change as the particles interact?

The Goals

The goals of this course are for you to become familiar with kinematics, dynamics, and conservation laws - the conceptual framework of classical mechanics - and to develop the robust problem-solving skills required by professional engineers and scientists. Our study of physics will emphasize thinking and reasoning. We will stress the use of qualitative reasoning, pictorial and graphical reasoning, and reasoning by analogy; we will also make use of mathematics to help us understand and describe patterns and relationships that exist in nature.

The Methodology

The basic methodology of Physics 2100 can be summarized as follows:

1. Read about it (textbook)
2. Untangle it (interactive lectures)
3. Practice with it (end-of-chapter homework)
4. Challenge yourself (web-based graded exercises and problems)

The order of the above items is very important. Your first exposure to any material will be when you read about it in the textbook (1) prior to lecture. The purpose of the textbook is to provide background for lectures, to be a resource for detailed explanations, to be a reference and a study guide, to offer practice problems, and to teach a robust problem-solving strategy.

The interactive lectures (2) will not simply regurgitate what you have read; rather, the purpose of the lectures is to be inspiring and stimulating, to clarify the textbook, to explain confusing issues, to urge you to think critically, to give you lots to think about, and to spark further interest in the material. This is not a traditional approach. Your participation is needed both prior to and during *each* lecture! It is also very important that you take notes during class to improve your comprehension and performance.

Lots of practice is required to become a proficient problem-solver. Roughly one day each week will be set aside to allow us to practice solving end-of-chapter exercises and problems (3). The problem-solving strategy used in class will be the same as that used in every example exercise in the textbook.

To cap things off, you will demonstrate what you have learned by completing web-based graded exercises and problems (4). These activities will include tutorial problems and end-of-chapter problems.

BACKGROUND

We expect students to have a good grasp of trigonometry and to be able to differentiate and integrate simple functions such as polynomials, sines and cosines. This requires knowledge of calculus at the level of MA1150, MA1151, MA1160, or MA1161. The study of physics can help to solidify your understanding of calculus.

No prior study of physics is assumed, but students enter Physics 2100 with a broad array of backgrounds, many having studied physics in high school. The pace of our course will be sufficiently deliberate so as to allow the novice to learn the material. If this is your first course in physics, you may find that initially you need to devote more time to your studies than your more experienced friends, but the workload tends to become more uniform as the semester progresses.

COURSE SUPPLIES

- Textbook: *Physics for Scientists and Engineers: A Strategic Approach*, 2nd edition, Randall D. Knight (bundled with a Student Workbook and a Student Access Kit to MasteringPhysics)*
- iclicker classroom response transmitter (hanging on the wall near the entrance to the Course Books section of the campus bookstore)
- scientific calculator (any type including graphing and programmable)
- straight edge

*Some Textbook Options:

Option 1: Purchase the standard edition of the textbook from the Campus Bookstore. Both new and used copies are available. The new textbook comes bundled with a Student Workbook and a Student Access Kit to MasteringPhysics. The standard edition is used in both PH2100 and PH2200.

Option 2: Purchase Volume 1 of the textbook from the College Bookshelf. Both new and used copies are available. The new textbook comes bundled with a Student Workbook and a Student Access Kit to MasteringPhysics. Volume 1 of the textbook is used in PH2100 and Volume 4 is used in PH2200.

Option 3: Purchase the textbook online in electronic form (eBook) along with MasteringPhysics access. This can be done at <http://www.masteringphysics.com>. Note that the Student Workbook, which is recommended but not required in PH2100/PH2200, is not included in the eBook.

As you weigh the various textbook options, be aware that the campus bookstore will buy back used textbooks for up to one-half the purchase price. Also, a MasteringPhysics account (with or without the eBook option) lasts two years.

COURSE STRUCTURE

Your grade for Physics 2100 will be based on the total number of points that you accumulate on the various graded activities. The total possible score is 1053 points, broken down as follows:

Reading Quizzes	57
Participation	64
Graded Homework (MasteringPhysics)	200
Exam I	120
Exam II	150
Exam III	150
Final Exam	300
MasteringPhysics Extra Credit	12

Letter grades for the course will be determined by total points earned in the following manner:

A	900-1053	C	700-749
AB	850-899	CD	650-699
B	800-849	D	600-649
BC	750-799	F	0-599

Reading Quizzes

Beginning on Wednesday, August 31st, each interactive lecture session will begin with a single-question multiple-choice reading quiz. The classroom response system described below will be used to record your answer to the quiz question. The quiz is intended to encourage you to read the relevant assignment prior to attending lecture. The reading assignments are located on the Assignment Schedule, page 9 of this document. Twenty-two 3-point reading quizzes will be given for a total of 66 points; however, you can earn a maximum of 57 points. Thus, you can miss three quizzes (including any absences) and still earn the maximum number of reading quiz points.

Reading technical material is a skill that can be developed with practice. Read actively with questions in mind. A passive approach to reading physics wastes your time. Read with a pencil and paper beside your book and jot down questions and notes. Read to learn, not merely to cover material. Be sure to answer the *Stop to Think* questions that are sprinkled throughout each chapter - the answers with full explanations are located at the very end of each chapter. Test your comprehension of a reading assignment by completing the related exercises in the Student Workbook. After completing the workbook exercises, you can approach the end-of-chapter exercises and problems with confidence.

Participation

During each interactive lecture and each problem-solving session, you will respond to several questions using the classroom response system. Questions will be cast in a multiple-choice format, and you will answer by pressing a letter on your pocket-size wireless transmitter. Your response will be collected by a receiver mounted on the front podium and routed to the presentation computer. You will receive 2 points for responding to a majority of the questions asked, independent of whether your answer is right or wrong.

Two points are available for each of 36 class sessions for a total of 72 points; however, you can earn a maximum of 64 points. This allows you to miss four classes (including excused absences) without a participation-point penalty.

Here are some details about the classroom response system: The portable radio frequency transmitter operates with three AAA batteries. The transmitter shuts off automatically when not in use; the lifetime of the batteries is about 200 hours. In addition to the On/Off button, the transmitter has 5 buttons for choices. When a question is asked,

check the Power LED to ascertain that the transmitter is on, then press your choice of letter A through E. If the Vote Status LED flashes green, your answer has been registered by the receiver; if the Vote Status LED flashes red, resubmit your answer. You may change your answer as often as you like; the system records only your latest response.

IClicker REGISTRATION INSTRUCTIONS: In order to receive credit for both the reading quizzes and participation exercises, please provide me with the eight digit identification number located on the back of your transmitter. To do so, take the iclicker registration quiz in Blackboard in which you're asked to enter your eight digit transmitter number. Complete the quiz by 11:00 p.m. on Sunday, September 11th.

If the iclicker registration quiz does not appear, turn off the popup blocker in your browser and try again.

If you're unable to complete the iclicker registration quiz on time or if during the course of the semester you find it necessary to change your transmitter number, please send me an email with your new transmitter number.

I'll show your registered clicker ID in Blackboard so that you can be certain that you have entered, and the system has recorded, the correct clicker ID.

Graded Homework (MasteringPhysics)

MasteringPhysics is a state-of-the-art online tutorial and homework system. We will use two types of exercises within MasteringPhysics: tutorial problems and end-of-chapter problems. The tutorial problems have extensive hints and subparts that you may request if you get stuck. The end-of-chapter problems are derived from problems in the textbook and typically have no hints. Your individual end-of-chapter problems will be unique due to the use of random numbers for some of the numerical parameters. For all types of problems, once you submit your answers, your work will be graded instantly. You will be permitted an unlimited number of submissions for each problem part, but there will be a deduction of 3% for each incorrect answer. You will receive a 2% bonus for each unopened hint. Multiple-choice questions are graded specially: in order to discourage guessing on multiple-choice questions, if a question has n choices, each incorrect answer results in a percent loss of $100/(n-1)$ for that question. This information is summarized in MasteringPhysics by clicking on *Grading Policy* at the head of each assignment.

A total of 12 homework assignments from MasteringPhysics will be assigned for grading. Four of the assignments are worth 16 points, and eight assignments are worth 17 points. The point total for all assignments is 200. Each assignment must be completed on Tuesday at 11:00 p.m. for full credit. Partial credit will be awarded for late work as follows: A problem submitted between 0 and 24 hours after the deadline receives an amount of credit that decreases linearly from 100% to 50% depending on exactly when the problem was submitted. A problem submitted later than 24 hours after the deadline still receives 50% of possible credit. Please plan on submitting your answers well in advance of the deadline to avoid problems with the web.

The first (ungraded!) assignment is entitled *Introduction to MasteringPhysics*. This initial assignment takes about 30 minutes to complete and consists of simple exercises to help you become familiar with the use of MasteringPhysics. This first assignment should be completed prior to attempting the graded assignments. The first graded homework is due on Tuesday, September 13th, at 11:00 p.m.

MASTERINGPHYSICS REGISTRATION INSTRUCTIONS: To use MasteringPhysics, please register at the MasteringPhysics website located at <http://www.masteringphysics.com>.

First time users: Click on Register: Students. In Step 1 of the registration process, select "Yes" if you purchased a textbook bundled with an access code, or select "No" if you intend to purchase access online along with the eBook option. Complete the remainder of the registration process using the following information:

Textbook: Knight: *Physics for Scientists and Engineers*, 2e
Course ID: MTUPH2100FALL2011 (where digits that look like zeros are zeros)
Email Address: please use your MTU email address
Student ID: your M-number (with an uppercase M but without the dash, for example, M12345678)

Prior users: Log in as an established user as you did previously. Sign up for PH2100 by entering as the Course ID: MTUPH2100FALL2011

Occasional problems arise with MasteringPhysics that are browser-related. If the graphics or the hints to a problem are missing, turnoff the popup blocker in your browser. If you continue to have problems, try a different browser – MasteringPhysics recommends the use of Firefox. Also, be sure that you have the latest version of the Flash player installed on your computer. If the problem persists, contact me or the technical support staff at MasteringPhysics. It's been my experience that MasteringPhysics responds very quickly to requests for help.

Exams and Final Exam

The three exams and final exam are scheduled as follows:

Exam I	Thursday, September 22, 2011
Exam II	Thursday, October 20, 2011
Exam III	Thursday, November 17, 2011
Final Exam	Monday, December 12, 2011 3:00 – 5:00 p.m.

The three exams will be 90 minutes long, beginning at 6:00 p.m. and ending at 7:30 p.m. The final exam will be a comprehensive two-hour examination. The location of the exams will be announced in class and via the class email list about a week before each exam.

All exams will be closed book and closed notes. You may use the PH2100 formula sheet that will be included with the exam booklet. You will need a scientific calculator for the exams; however, equations may not be stored in calculators, nor may calculators be exchanged.

The doors to the exam rooms will open at 5:55 p.m. and everyone should be seated in an assigned seat and ready to begin work by 6:00 p.m. Exam answer sheets will be collected 90 minutes later.

Exam I will consist of 30 conceptual questions and traditional problems with each question worth four points. Exams II and III will consist of 30 conceptual questions and traditional problems with each question worth five points. The Final Exam will consist of a total of 50 conceptual questions and problems with each question worth six points. Both the questions and problems will be multiple-choice. The questions and problems will be similar to the *Stop to Think* questions and worked examples found in the textbook, the assigned end-of-chapter conceptual questions, the assigned end-of-chapter exercises and problems, the graded homework problems (MasteringPhysics), and questions and problems posed and answered during lecture.

There will be no curving, scaling, redemption, or any other adjustment of exam scores.

It is your responsibility to appear at the scheduled times to take the exams. Conflicts should be avoided by changing the conflicting event. No late exams will be given, and an unexcused absence from any exam will result in a grade of zero.

MasteringPhysics Extra Credit

You may earn up to 12 additional course points of extra credit by completing all of the assignments identified as Extra Credit in MasteringPhysics. There are twelve Extra Credit collections of problems, one for each chapter. Each of the twelve Extra Credit collections of problems is worth five MasteringPhysics points for a total of sixty

MasteringPhysics points. Your extra credit score that contributes to your course grade will be computed by dividing your total MasteringPhysics extra credit points by five. For example, if you earn 40 MasteringPhysics points of extra credit, 8 points will be added to your course total.

Grade Tracking

The results of your reading quizzes, participation, and MasteringPhysics homework will be updated at the end of each week and will be available to you in the grade book maintained in Blackboard. This is where your exam scores and ultimately your course grade may be found as well. In addition to grades, I will use Blackboard to list your iclicker transmitter number so that you can verify that I have your correct number. It's your responsibility to examine the grade book periodically for accuracy and to report any discrepancies to me.

ACCESSING Blackboard: Blackboard is located at <https://courses.mtu.edu> . Your User ID is your campus email address without the @mtu.edu, and, by default, your Password is the same as your user ID. If you previously used Blackboard and changed your password, your updated password is needed. If you have forgotten your password, take your ID to Customer Service in room B24 of the EERC and request a new password.

ADDITIONAL INFORMATION

Formula Sheet

The formula sheet appended to this document will be provided during all exams - no other formula sheet or table is allowed. Keep the formula sheet by your side as you solve problems.

Excused Absences

Events beyond your control may cause you to miss a homework deadline or an exam. Whenever possible, contact me *prior* to your absence to arrange to make-up missed work. If you are unable to notify me concerning an absence or if you need to notify several instructors on short notice, contact the Office of Student Affairs for assistance. The Dean of Students will then inform all your instructors that you face a situation that requires that you miss class, and you are granted an excused absence. It's then your responsibility to contact each of your instructors after you recover from your illness or return to campus.

An absence is excused under the following conditions:

- If you participate in off-campus University-sponsored activities such as field trips, fine arts performances, intercollegiate athletics, job fairs, etc., you are granted an excused absence if your activity conflicts with an exam. Furthermore, I consider plant trips, job interviews requiring travel, and professional society meetings as excusable. It is imperative that for an absence of this type, for which a conflict with an exam is known well ahead of time, that you arrange with me to take the exam *earlier* than its normally scheduled time.
- If you encounter circumstances beyond your control such as illness, the funeral of any relative or close friend, or other personal emergency, you are granted an excused absence. You must provide verification of the special circumstances that led to your absence. In the event of a missed exam due to an excused absence, it is not possible to make-up the exam. Instead, an excused absence from an exam will receive the score EX. At the end of the semester, exam EX scores will be replaced by a weighted average of all of your non-EX scores on exams (exams and final exam). If the final exam is missed as a result of an excused absence, you will be awarded the letter grade of I (incomplete) and must take the PH2100 final exam at the end of any one of the next three semesters that you're in residence. Two or more exams missed as a result of excused absences will be handled on an individual basis.

If a homework due date is missed as a result of an excused absence, the due date will be extended after you notify me.

Getting Help

Office Hours

In order to encourage you to ask questions, I've set aside the following times for office hours: Monday, Wednesday, and Friday 10:00 a.m. – noon; Tuesday and Thursday 1:00 - 3:00 p.m. If these times are inconvenient, please let me know so that we might find a mutually agreeable meeting time.

Exam Review Sessions

I will conduct a review session during the evening prior to each exam according to the following schedule:

Wednesday	September 21	7:00 – 8:30 p.m. in M&M U115
Wednesday	October 19	7:00 – 8:30 p.m. in M&M U115
Wednesday	November 16	7:00 – 8:30 p.m. in M&M U115

The Physics Learning Center

The Physics Learning Center is staffed by trained undergraduate coaches. The Physics Learning Center, located in 228 Fisher, provides team learning, one-on-one appointments, and walk-in help. Walk-in help is available at the following times:

Monday	7:00 - 9:00 p.m.
Tuesday through Thursday	3:00 - 9:00 p.m.

The coaches may provide help with the graded homework assignments, but don't expect them to work the problems for you. The coaches will provide hints in the form of questions, which should enable you to work the problems yourself.

MasteringPhysics

Additional practice is available using MasteringPhysics. The additional practice is labeled as Extra Credit and is located in the assignment list below the 12 graded assignments. The Extra Credit assignments consist of tutorial problems with their built-in hints.

Drop Dates

Drop date with no grade: September 16, 2011

Drop date with W grade: October 21, 2011

Late drop: If after the drop date circumstances beyond your control prevent you from completing the course, you may be a candidate for a late drop. The process does not begin with a course instructor but rather with the Dean of Students, to whom you confide the details of your situation.

MTU ADA Statement

Michigan Technological University complies with all federal and state laws and regulations regarding discrimination, including the Americans with Disabilities Act of 1990. If you have a disability and need a reasonable accommodation for equal access to education or services at Michigan Tech, please call the Dean of Students Office, at 487-2212. For other concerns about discrimination, you may contact your advisor, Chair/Dean of your academic unit or the Affirmative Programs Office, at 487-3310.

Academic Dishonesty

New technologies engender new forms of cheating. Some known types of cheating and the action that will result when cheating is identified are described below.

-Giving someone else your iclicker transmitter is just like letting someone else take a quiz or exam for you. In the past, one of the things students liked most about the classroom response system was the immediate feedback it provided about their conceptual understanding of important topics. You lose this learning opportunity if you give your transmitter to someone else. Reading quiz and participation points represent a small part of your grade, so it's unwise to jeopardize your academic record by cheating with iclicker.

-Copying someone else's answers in MasteringPhysics is cheating. MasteringPhysics includes tools to help instructors identify cheating. In addition, the support staff at MasteringPhysics, if requested, will assist instructors to identify cheating. MasteringPhysics will prohibit students identified as cheaters from using their website.

If cheating is suspected, the matter will be referred to the Office of Student Affairs. The penalty for cheating is not less than an academic integrity warning and not more than expulsion.

Summary of Week One Activities

Participation in Physics 2100 requires that you perform the following activities, preferably as early in the semester as possible:

ACCESS Blackboard: Blackboard is located at <https://courses.mtu.edu>. Your User ID is your campus email address without the @mtu.edu and, by default, your Password is the same as your user ID. If you previously used Blackboard and changed your password, your updated password is needed. If you have forgotten your password, take your ID to Customer Service in room B24 of the EERC and request a new password. In addition to grades, I will use Blackboard to list your iclicker transmitter number so that you can verify that I have your correct number.

IClicker REGISTRATION INSTRUCTIONS: In order to receive credit for both the reading quizzes and participation exercises, please provide me with the eight digit identification number located on the back of your transmitter. To do so, please take the iclicker registration quiz in Blackboard in which you're asked to enter your eight digit transmitter number. Complete the quiz by 11:00 p.m. on Sunday, September 11th.

If the iclicker registration quiz does not appear, turn off the popup blocker in your browser and try again.

MASTERINGPHYSICS REGISTRATION INSTRUCTIONS: To use MasteringPhysics, please register at the MasteringPhysics website located at <http://www.masteringphysics.com>.

First time users: Click on Register: New Students. In Step 1 of the registration process, select Yes if you purchased a textbook bundled with an access code, or select No if you intend to purchase access online along with the eBook option. If you select No, on the following page select for your textbook Knight: *Physics for Scientists and Engineers*, 2e. Complete the remainder of the registration process using the following information:

Course ID:	MTUPH2100FALL2011
Email Address:	please use your MTU email address
Student ID:	your M-number (without the dash, for example, M12345678)

Prior users: Log in as an established user as you did previously. Sign up for PH2100 by entering as the Course ID: MTUPH2100FALL2011

Assignments are taken from the textbook *Physics for Scientists and Engineers*, 2nd edition, by Randall D. Knight

CQ denotes end-of-chapter conceptual questions from the textbook

E&P denotes end-of-chapter exercises and problems from the textbook

SW denotes suggested practice exercises found in the Student Workbook

MP denotes tutorial problems using MasteringPhysics

Date	Assignment	Additional Practice & Extra Credit
August 29	Introduction and Orientation	
August 31	Read Chapter 1 Sections 1 - 4	SW Sections 1.1 - 1.4
September 2	Read Chapter 1 Sections 5 - 8	SW Sections 1.5 - 1.8 MP Chapter 1: Extra Credit
September 5	Labor Day – no class	
September 7	Read Chapter 2 Sections 1 - 3	SW Sections 2.1 - 2.3
September 9	K-Day – no class	
September 12	Chapter 2 CQ 4, 5, 7; E&P 1, 3, 4, 6, 7, 25, 27, 29, 56	MP Chapter 2: Extra Credit
September 13	MasteringPhysics: Homework 1 – Chapter 1	
September 14	Read Chapter 2 Sections 4 - 7	SW Sections 2.4 - 2.7
September 16	Chapter 2 CQ 9, 11, 12; E&P 9, 13, 15, 17, 20, 22, 35, 47, 51, 63, 68	MP Chapter 2: Extra Credit
September 19	Read Chapter 3 Sections 1 - 4	SW Sections 3.1 - 3.4
September 20	MasteringPhysics: Homework 2 – Chapter 2	
September 21	Chapter 3 CQ 1, 2, 6, 7; E&P 1, 3, 5, 9, 16, 19, 26, 33, 37, 43, 44	MP Chapter 3: Extra Credit
September 22	Exam I Chapters 1 - 3	
September 23	optional class - work exam from previous evening	
September 26	Read Chapter 4 Sections 1 - 3	SW Sections 4.1 - 4.3
September 27	MasteringPhysics: Homework 3 – Chapter 3	
September 28	Read Chapter 4 Sections 4 - 7	SW Sections 4.4 - 4.7
September 30	Chapter 4 CQ 3, 4, 12, 14, 16; E&P 1, 6, 12, 13, 19, 21, 27, 30, 34, 52, 56, 65	MP Chapter 4: Extra Credit
October 3	Read Chapter 5 Sections 1 - 3	SW Sections 5.1 - 5.3
October 4	MasteringPhysics: Homework 4 – Chapter 4	
October 5	Read Chapter 5 Sections 4 - 7	SW Sections 5.4 - 5.7
October 7	Chapter 5 CQ 4, 7, 11, 13; E&P 3, 8, 13, 18, 19, 26, 29, 30, 41, 47, 50, 54, 56	MP Chapter 5: Extra Credit
October 10	Read Chapter 6 Sections 1 - 3	SW Sections 6.1 - 6.3
October 11	MasteringPhysics: Homework 5 – Chapter 5	
October 12	Read Chapter 6 Sections 4 - 6	SW Sections 6.4 - 6.6
October 14	Chapter 6 CQ 1, 7, 11, 16, 17; E&P 1, 7, 9, 15, 17, 20, 25, 37, 41, 49, 51	MP Chapter 6: Extra Credit

Date	Assignment	Additional Practice & Extra Credit
October 17	Read Chapter 7 Sections 1 - 3	SW Sections 7.1 - 7.3
October 18	MasteringPhysics: Homework 6 – Chapter 6	
October 19	Chapter 7 CQ 1, 7, 8; E&P 1, 10, 20, 26, 29, 31, 33, 46	MP Chapter 7: Extra Credit
October 20	Exam II Chapters 4 - 7.3	
October 21	optional class - work exam from previous evening	
October 24	Read Chapter 7 Sections 4 - 5	SW Sections 7.4 – 7.5
October 25	MasteringPhysics: Homework 7 – Chapter 7 Sections 1 - 3	
October 26	Chapter 7 CQ 11, 13, 15; E&P 14, 22, 30, 36, 37, 39, 44, 51	MP Chapter 7: Extra Credit
October 28	Read Chapter 8 Sections 1 - 3	SW Sections 8.1 – 8.3
October 1	Chapter 8 CQ 1, 2, 3 E&P 1, 5, 7, 8, 28, 35, 36, 40, 46, 61	MP Chapter 8: Extra Credit
November 1	MasteringPhysics: Homework 8 – Chapter 7 Sections 4 - 5	
November 2	Read Chapter 13 Sections 1 – 4, 6 (thru Kepler's 3 rd Law)	SW Sections 13.1 – 13.4, 13.6
November 4	Chapter 13 CQ 2, 4, 6, 9; E&P 1, 5, 7, 11, 21, 24, 27, 44, 52, 56	MP Chapter 13: Extra Credit
November 7	Read Chapter 8 Sections 4 - 7	SW Sections 8.4 - 8.7
November 8	MasteringPhysics: Homework 9 – Chapters 8 and 13	
November 9	Chapter 8 CQ 5, 8, 10; E&P 11, 13, 14, 19, 38, 41, 43, 49, 51	MP Chapter 8: Extra Credit
November 11	Read Chapter 9 Sections 1 - 2	SW Sections 9.1 - 9.2
November 14	Read Chapter 9 Sections 3 - 6	SW Sections 9.3 - 9.6
November 15	MasteringPhysics: Homework 10 – Chapter 8	
November 16	Chapter 9 CQ 1, 8, 13, 14, 15; E&P 5, 7, 12, 15, 19, 20, 24, 26, 38, 39, 41, 57	MP Chapter 9: Extra Credit
November 17	Exam III Chapters 7.4 - 9, 13	
November 18	optional class - work exam from previous evening	
November 28	Read Chapter 10 Sections 1 - 4	SW Sections 10.1 - 10.4
November 29	MasteringPhysics: Homework 11 – Chapter 9	
November 30	Read Chapter 10 Sections 5 - 7	SW Sections 10.5 - 10.7
December 2	Chapter 10 CQ 5, 6, 8, 11, 13; E&P 3, 7, 12, 18, 21, 28, 29, 34, 44, 53, 56	MP Chapter 10: Extra Credit
December 5	Read Chapter 11 Sections 1 - 4	SW Sections 11.1 - 11.4
December 6	MasteringPhysics: Homework 12 – Chapter 10	
December 7	Read Chapter 11 Sections 5 - 9	SW Sections 11.5 - 11.9
December 9	Chapter 11 CQ 5, 7, 8, 12; E&P 1, 7, 11, 14, 19, 24, 29, 31, 41, 50, 55	MP Chapter 11: Extra Credit
December 12	Final Exam Chapters 1 – 11, 13 3:00 – 5:00 p.m.	