PHYS 114 – General Physics II – Spring 2013

Section Room Instructor Contact Info.
LEC: TU 1:30 & 2:30 CW 103 Gary Wysin 532-1628, wysin@phys.ksu.edu
REC: W 8:30 & 9:30 CW 146 Shawn Westmoreland 532-5768, westmore@phys.ksu.edu
REC: W 10:30 & 12:30 CW 143 Robert Szoszkiewicz 532-0855, rs@phys.ksu.edu
REC: W 1:30 & 2:30 CW 146 Gary Wysin 532-1628, wysin@phys.ksu.edu
Director of Labs: CW 402 Tracy Tuttle 532-1605, trtutt@phys.ksu.edu

Important!
You must register for all four PHYS 114 sections, LEC, QZ, REC, and LAB. If you are missing any of these, get on the wait list immediately!

Text

Course Web Sites
See lecture notes and other aids at www.phys.ksu.edu/personal/wysin/GPII/
See your current grades at K-State On-Line online.ksu.edu
Do the on-line homework assignments at www.masteringphysics.com

Prerequisites
Phys 113, and a basic knowledge of algebra, trigonometry, geometry and a calculator.

Description
PHYS 114 is an algebra/trigonometry based introductory physics course dealing with the topics of electricity, magnetism, light and quantum physics. Emphasis will be placed on the basic principles and concepts and their applications in everyday technology and in the world’s economy.

Objectives
Successful students will understand how to analyze the processes of nature, what goes on in the world, and how some technology works, including the basic concepts and numerical estimates.

Grading
Grades will be determined from Recitation, Exams, Labs, and Homework, as follows:

<table>
<thead>
<tr>
<th>Task</th>
<th>Points</th>
<th>Grading scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour Exams (best 4/5, 140 pts. each)</td>
<td>560</td>
<td>A: 1000–900</td>
</tr>
<tr>
<td>Lab writeups (best 12/13, scaled to 200 pts.)</td>
<td>200</td>
<td>B: 900–800</td>
</tr>
<tr>
<td>Recitation (Show-work: 15 x 4 pts. each)</td>
<td>60</td>
<td>D: 700–600</td>
</tr>
<tr>
<td>On-line homework (15 x 12 pts. each)</td>
<td>180</td>
<td>F: below 600</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

Recitation includes an in-class show-work element on paper (15 scores of 4 pts. each, none dropped) and an on-line homework at masteringphysics.com (15 assignments of 12 pts. each, none dropped). The courseID there is MPWYSIN2013S. Each lab writeup is graded out of 15 points; the best 12 scores will be scaled out of 200 points. The lowest of the hour exams, each worth 140 points, will be dropped. Because lowest scores are dropped, there are no makeup recitations, labs, or exams. The last hour exam takes place at 6:20 - 8:10 p.m., Tuesday, May 14 (See http://courses.k-state.edu/exam-schedule.html).

Laboratory
The laboratory is a required and integrated part of the course, and counts 20% towards your grade. A passing grade (60%) in the laboratory is required to pass the course. See the lab manual and listen to your lab instructor for rules and grading procedures. Lab begins during the second week of class. You do not need to buy any lab manual. The lab information will be found in electronic form on KSOL before each lab. Address your questions about lab grades and procedures either to your lab instructor or to Tracy Tuttle, the Director of Undergraduate Physics Labs, CW402.
Credit for Previous Lab Work
Students retaking the course, who have successfully completed the lab must contact Tracy Tuttle in CW402 (532-1605) prior to the first week of lab to get credit for the previous lab work. There is a special lab section to enroll in for retakes.

Recitation and Homework
Doing homework problems is an important part of obtaining success in physics, helping you organize your thoughts, learn the concepts, and apply them.

The recitation is where you can go for help with problem solving and learning concepts. If you have already attempted some of the HW before the recitation, you will get more out of it. The recitation will be oriented towards learning and applying ideas in general, not necessarily to particular problems. The recitation should improve your overall understanding of physics, and help you prepare for exams as well.

There will be two elements to submitting homework: a “show-work” problem submitted on paper in recitation class (4 points/week), and on-line submission of the full assignment at masteringphysics.com (12 points/week). The MP courseID is MPWYSIN2013S.

Show-work: The choice of the show-work problem is up to your recitation instructor. It may be from the on-line assignment or it could be another problem, either of a tutorial style or a worked problem. It could be done individually or in collaboration, according to the request of your recitation instructor. If it is in a collaboration, you must write “I worked with Joe Charger and Mary Magnet on this assignment” (fill in your collaborators’ names). It should not be solved by finding or copying a solution on the internet, that would be an unauthorized aid and an honor code violation.

Your “show-work” problem must show the details of how you solved it: include necessary diagrams, identify the concepts or physics principles you are using, show the equations you apply, and show how the numbers with units are inserted after that, and finally, a numerical answer with the correct units. No credit will be given for just numbers or a yes/no response. Keep in mind that students who do best on exams are the ones who work carefully, writing things out clearly with well-organized presentation of the concepts and equations used before inserting numbers. See the problem solving tips on pages 3 and 4, and the Guide to Solving Physics Problem hand-out in KSOL.

On-line: Each on-line assignment will be available at www.masteringphysics.com about 10 days before the associated recitation. The MP courseID is MPWYSIN2013S. The problems are from the Giancoli text and other textbooks, as well as Pearson’s “self-tutorial-problems”. The due dates will be 11:59 pm Fridays. None of your on-line scores will be dropped. You are allowed to work with others (not copying) on your HW, which means discuss the ideas and things you don’t understand, until you do. Many of the problems have randomized numbers: everybody gets different numerical values. So you will be happiest if you understand what you are doing. You are not allowed to use solution manuals, on-line solution websites, Cramster, etc. These are considered unauthorized aids and a violation of the honor code. The point of homework is to practice thinking, not copying a solution algorithm from another source.

To get access to the on-line homework you need an access code for masteringphysics.com. However, if you took PHYS 113 in Fall 2012 then you already have a Pearson account and you do not need to buy another access code: your MP login name and password from Fall 2012 should still work. An access code can be purchased at the site with a credit card, at the bookstores, or as an option to be included with a paper text or an e-text. The MP courseID is MPWYSIN2013S. Your username there can be anything, but you might use your eID name so you remember it. Enter your WID correctly there so you get credit when I copy grades to KSOL.

On exams, you will need to show how you solved problems, so it will be good to practice this when doing your HW, even if it is not necessary for submitting online HW. So for your own benefit, acquire the habit of writing out the details of your solutions. You can list the given quantities (with their symbols and values with units) and list the quantity you are looking for (with its symbol and units). Include necessary diagrams, the equations you applied, show how the numbers with units were inserted after that, and
finally, give a numerical answer with the correct units. Practice thinking while doing your HW, then your exams will become easier. Remember that on exams, no credit will be given if just the final numerical answer is given.

**Hour Exams**
These take place on Mondays at 5:30–6:45 p.m. in CW 101,103, except for the last one, which will be in the final exam time, 6:20–8:10 p.m., Tuesday, May 14, see the schedule. If you have an official University event, such as participation in a KSU sports team, debate team, etc., that conflicts with an exam time, you might be able to take that exam early, ask me. There are no makeup exams, but your lowest score of the five exams will be dropped.

The exam problems will be based on the same concepts as covered in the lectures and in homeworks. Old exams and solutions can be found on the course website. Try to **study the concepts and how to apply them**, do not just try to memorize how to solve particular problems. One page on the exam will be an equation sheet that summarizes the important formulas you may need to do the problems in those chapters. This equation sheet will be posted to KSOL some days before the exams. Solution keys to the exams will be posted on the course website.

**Final Exam**
The Final Exam is the last hour exam, covering Chapters 30 & 31, on Tuesday, May 14, from 6:20 – 8:10 p.m. in CW 101,103. If you are satisfied with the grades you have up to that point, then Exam 5 could be the hour exam that you drop, and your grade will be calculated without it. That means Exam 5 is optional.

Plan early, keep up with the course, take responsibility for your learning and your grade, and you can get done with PHYS 114 early! If in doubt, take the final hour exam, it can only raise your grade or leave it unchanged.

**Grades on KSOL**
Be aware that the total course grade you see in KSOL during the semester is only an **estimate** of your grade. Until all homework, recitation and lab grades are entered, KSOL does not give your precise grade, due to the low scores being dropped and scaling of points. Only when all components have been entered, is it correct.

Grades may be contested up to one (1) week after being posted on KSOL - after that they become a permanent academic record. This applies to both the main gradebook for the course and the gradebook for the lab.
Tips on doing Physics II homework problems

* Don’t wait until the last minute.
  Begin homework assignments several days before they are due.
  You can surely do some of them even before hearing about the topic in lecture.

* What’s going on here?
  Sketch the situation. Make it seem real for yourself.
  Identify desired quantities, their symbols, and their units.
  *I want to find charge q, in coulombs*
  List the quantities you know, with units.
  *I know potential V, in volts.*
  *I know capacitance C, in farads.*
  Recall the definitions of these items, it may help a lot!
  What are the important equations or relations between them?
  *The charge is given by the capacitor formula. q = CV.*

* Get help if you need it.
  Being completely stuck is no fun. If you really are getting nowhere, and have no idea what to do
  next, you are encouraged to cooperate with other students, or seek help from your instructors.

* What’s my strategy?
  What concepts and equations apply?
  Briefly state your strategy in words and sentences.
  (Pretend you are explaining to another student.)
  Write down the equation(s) you will use, in symbols.

* Solve algebraically for the desired quantity.
  Still stuck? Did you really draw a diagram?!
  You may need to combine some equations, or use trigonometry, that’s OK!
  Get the quantity you want on the left of the equals sign, and everything else on the right.
  Don’t skip steps.

* Do the arithmetic, with units.
  Substitute numbers with units in your equation.
  Power \( P = IV \) becomes \( P = (8.0 \, A)(24 \, V) = (8.0 \, C/s)(24 \, J/C) = 192 \, J/s = 192 \, W. \)
  Keep the units on everything until the end. It’s a useful check.

* Write down the answer, with correct units!

* Does the answer make sense?
  Is the number of reasonable size, not excessively large or small?
  If you change the given numbers to very simple cases, will you get an expected result?
  If you modified the situation into a simpler one, will your approach still work?

* Enjoy the challenge.
  Hey, you figured out something new. Now you understand it.
  And it wasn’t so simple.
  Have confidence, you can do as well or better on the next problem!
Physics Study Hints:
1. Read the textbook, paying attention to the equations and figures.
2. When you take notes in class, don’t just copy equations and diagrams. Listen to the instructor and write down the ideas behind the equations and diagrams!
3. Study the examples in the book in order to learn how to solve problems.
4. If you don’t understand, formulate a question. Write down your questions so you can ask your instructor later. Then ask your instructor later!
5. Stop occasionally and think about what you just read. Try to think of real-life examples where the physics ideas might be applicable.
6. Look at extra questions and level I problems, just to see if you would know how to answer them. If so, you have a good grasp of the definitions of basic concepts.
7. If you can’t work a difficult homework problem, try to work a related, but easier one first. Or, try breaking your problem into steps or parts.
8. Keep in mind, the level II problems usually require you to apply more than one concept. You probably need to use more than one equation.
9. In physics, the same idea can be expressed several ways: as a picture or diagram, equation, or graph. Look for the main idea. Think about how the different presentations help you to understand it.
10. Remember, physics isn’t always complicated. Most of the ideas are simple and common-sense.

Laboratory Hints:
1. Work smart, which is to say, efficiently. Check yourself as you go along (hints 3,5,6 above). Do it right the first time, because you won’t have time to do it over.
2. Write down the names and telephone numbers of your lab partners on your data sheet.
3. Read the lab manual before lab. Figure out what you want to look for, and how you will look for it. Write this down before you get to lab. (This is the start of your lab report.)
4. In lab, pay attention to the lab instructor’s explanation. Some things aren’t in the lab manual.
5. While taking data, make a graph right away so you can see if your data make sense. Professional physicists do this all the time. Plot each data point as soon as you’ve finished writing down the number. This habit can save a lot of trouble later, because you can immediately see what the data are doing!
6. After you have taken a few data points, do a sample calculation for analyzing the data. This will (a) let you know if your data make sense, (b) let you know whether you understand what you are doing, (c) let you know if you’ve forgotten to write down any quantities. A sample calculation will save you from getting home, then realizing that you forgot to get a number.
7. Write down everything on your data sheets. Never rely on your memory. Use pen. Never erase. Cross mistakes out neatly instead, so you can still read them if you have to. Write down ideas that occur to members of your lab group, too!
8. Work as a team. Make sure that everyone gets to play with the equipment. Report broken equipment to the lab instructor, so he can make sure it gets fixed.
9. Graphs on the data sheet may be crude. Graphs in the lab report should be drawn large enough to see, preferably on a full page. Graphs and tables must have titles. The axes on graphs must have labels (i.e., numbers, name of quantity being plotted, and its units).
10. Use words and sentences to describe what you are doing. Correct spelling and grammar are encouraged. Graphs, tables and equations supplement the words. They never replace words.
**Schedule for General Physics II, Spring 2013**

<table>
<thead>
<tr>
<th>Date</th>
<th>Reading</th>
<th>Lecture Topics / Recitation Conceptual Questions</th>
<th>Week's Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-30 We</td>
<td>Recitation 2</td>
<td>16. Q17,18; 17. Q2,4,7.</td>
<td></td>
</tr>
<tr>
<td>2-06 We</td>
<td>Recitation 3</td>
<td>17. Q8,14; 18. Q5,6,11.</td>
<td>Equipotentials &amp; Electric Fields</td>
</tr>
<tr>
<td>2-07 Th</td>
<td>18-6 to 18-8</td>
<td>18. Alternating Current, Review Chs. 16–18</td>
<td></td>
</tr>
<tr>
<td>2-11 Mo</td>
<td>Exam #1</td>
<td>Chs. 16,17,18 – Electricity</td>
<td></td>
</tr>
<tr>
<td>2-12 Tu</td>
<td>19-1 to 19-4</td>
<td>19. DC Circuits &amp; Kirchhoff’s Rules</td>
<td>Ohm’s Law &amp; DC Circuits</td>
</tr>
<tr>
<td>2-13 We</td>
<td>Recitation 4</td>
<td>18. Q15,19; 19. Q4,5,6.</td>
<td></td>
</tr>
<tr>
<td>2-14 Th</td>
<td>20-1 to 20-6</td>
<td>20. Magnetic Field and Forces</td>
<td></td>
</tr>
<tr>
<td>2-19 Tu</td>
<td>20-6 to 20-10</td>
<td>20. Magnetic Applications: Solenoids, etc.</td>
<td></td>
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<tr>
<td>2-20 We</td>
<td>Recitation 5</td>
<td>20. Q3,9,10,30.</td>
<td></td>
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<tr>
<td>2-21 Th</td>
<td>21-1 to 21-5</td>
<td>21. Induced Electromotive Force (Faraday’s Law)</td>
<td></td>
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<tr>
<td>2-26 Tu</td>
<td>21-6 to 21-9</td>
<td>21. Generators, Motors &amp; Transformers, etc.</td>
<td></td>
</tr>
<tr>
<td>2-27 We</td>
<td>Recitation 6</td>
<td>21. Q2,3,4,11,15.</td>
<td>Electromagnetic Induction</td>
</tr>
<tr>
<td>2-28 Th</td>
<td>Review</td>
<td>Chs. 19,20,21 – Electromagnetics</td>
<td></td>
</tr>
<tr>
<td>3-04 Mo</td>
<td>Exam #2</td>
<td>Chs. 19,20,21 – Electromagnetics</td>
<td></td>
</tr>
<tr>
<td>3-05 Tu</td>
<td>22-1 to 22-7</td>
<td>22. Electromagnetic Waves</td>
<td>Ray Tracing</td>
</tr>
<tr>
<td>3-06 We</td>
<td>Recitation 7</td>
<td>22. Q1,3,7.</td>
<td></td>
</tr>
<tr>
<td>3-07 Tu</td>
<td>23-1 to 23-3</td>
<td>23. Images by Reflection, Mirrors</td>
<td></td>
</tr>
<tr>
<td>3-12 Tu</td>
<td>23-4 to 23-9</td>
<td>23. Images by Refraction, Lenses</td>
<td>Human Eye &amp; Simple Camera</td>
</tr>
<tr>
<td>3-13 We</td>
<td>Recitation 9</td>
<td>23. Q4,5,11,13,19.</td>
<td></td>
</tr>
<tr>
<td>3-14 Th</td>
<td>25-1 to 25-4</td>
<td>25. Optical Instruments &amp; Vision</td>
<td></td>
</tr>
</tbody>
</table>

Note: The “Q” refer to the conceptual question numbers at ends of chapters in the Giancoli 6th edition text. These might be discussed in your recitation, but there is nothing to be handed in, unless one is assigned as the show-work. The main homework assignments are found online at masteringphysics.com. Exams are at 5:30 – 6:45 p.m. on the indicated Mondays, except for Exam 5, see the next page.
<table>
<thead>
<tr>
<th>Date</th>
<th>Reading</th>
<th>Lecture Topics / Recitation Conceptual Questions</th>
<th>Week’s Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-18 Mo-F</td>
<td>Spring Break</td>
<td>No Classes All Week</td>
<td>No Lab</td>
</tr>
<tr>
<td>3-26 Tu</td>
<td>24-1 to 24-6</td>
<td>24. Light Waves &amp; Interference</td>
<td></td>
</tr>
<tr>
<td>3-27 We</td>
<td>Recitation 10</td>
<td>25. Q1,6; 24. Q4,6,18,26,30.</td>
<td></td>
</tr>
<tr>
<td>3-28 Th</td>
<td>24-8 to 24-10</td>
<td>24. Thin Film Interference; Polarization</td>
<td>Diffraction &amp; Interference</td>
</tr>
<tr>
<td>4-01 Mo</td>
<td><strong>Exam #3</strong></td>
<td>Chs. 22,23,24,25 – Optics</td>
<td></td>
</tr>
<tr>
<td>4-02 Tu</td>
<td>26-1 to 26-4</td>
<td>26. Relativity – Time &amp; Length</td>
<td>Polarization</td>
</tr>
<tr>
<td>4-03 We</td>
<td>Recitation 11</td>
<td>26. Q2,5,7,9.</td>
<td>of Light</td>
</tr>
<tr>
<td>4-04 Th</td>
<td>26-5 to 26-9</td>
<td>26. Relativity – Mass &amp; Energy</td>
<td></td>
</tr>
<tr>
<td>4-09 Tu</td>
<td>27-1 to 27-4</td>
<td>27. Thermal-photons, Photo-electrons</td>
<td>Photoelectric Effect</td>
</tr>
<tr>
<td>4-10 We</td>
<td>Recitation 12</td>
<td>27. Q7,9,12,13;</td>
<td></td>
</tr>
<tr>
<td>4-11 Th</td>
<td>27-4 to 27-9</td>
<td>27. Photons &amp; Matter Waves</td>
<td></td>
</tr>
<tr>
<td>4-16 Tu</td>
<td>27-10 to 27-13</td>
<td>27. Atomic Spectra &amp; Bohr’s Model</td>
<td>Atomic Spectra</td>
</tr>
<tr>
<td>4-17 We</td>
<td>Recitation 13</td>
<td>27. Q18,22,26;</td>
<td></td>
</tr>
<tr>
<td>4-18 Tu</td>
<td>28-1 to 28-4</td>
<td>28. Quantum Mechanics &amp; Uncertainty</td>
<td></td>
</tr>
<tr>
<td>4-23 Tu</td>
<td>28-5 to 28-8</td>
<td>28. Q1,2,7,17,19.</td>
<td>no lab</td>
</tr>
<tr>
<td>4-24 We</td>
<td>Recitation 13</td>
<td>28. Q1,2,7,17,19.</td>
<td></td>
</tr>
<tr>
<td>4-25 Th</td>
<td>Review</td>
<td>Chs. 26,27,28 – Modern Physics</td>
<td></td>
</tr>
<tr>
<td>4-29 Mo</td>
<td><strong>Exam #4</strong></td>
<td>Chs. 26,27,28 – Modern Physics</td>
<td></td>
</tr>
<tr>
<td>4-30 Tu</td>
<td>30-1 to 30-6</td>
<td>30. Nuclear Physics &amp; Radioactive Decays</td>
<td>Simulated</td>
</tr>
<tr>
<td>5-01 We</td>
<td>Recitation 14</td>
<td>30. Q1,2,3,11.</td>
<td>Nuclear Decay</td>
</tr>
<tr>
<td>5-02 Th</td>
<td>30-7 to 30-13</td>
<td>30. Half-Life, Decay Rates &amp; Activity</td>
<td></td>
</tr>
<tr>
<td>5-07 Tu</td>
<td>31-1 to 31-3</td>
<td>31. Nuclear Energy, Fission, Fusion</td>
<td></td>
</tr>
<tr>
<td>5-08 We</td>
<td>Recitation 15</td>
<td>30. Q12,14,24; 31. Q1,4,22.</td>
<td>Radiation</td>
</tr>
<tr>
<td>5-09 Th</td>
<td>31-4 to 31-5</td>
<td>31. Radiation Damage &amp; Dosimetry</td>
<td></td>
</tr>
<tr>
<td>5-14 Tu</td>
<td><strong>Exam #5</strong></td>
<td>Chs. 30,31 – Nuclear Physics, 6:20-8:10 p.m.</td>
<td>CW 101,103</td>
</tr>
</tbody>
</table>
IMPORTANT STATEMENTS

Disabilities
Any student with a disability who needs a classroom accommodation access to technology or other assistance in this course (such as extra time on exams), should contact Disability Support Services and/or the instructor. DSS serves students with a wide range of disabilities including, but not limited to, physical disabilities, sensory impairments, learning disabilities, attention deficit disorder, depression, and anxiety.

University Statement Regarding Academic Honesty
Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance in academic matters one’s work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The honor system website can be reach via the following URL: www.k-state.edu/honor.

A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

My Additional Statements on Academic Honesty
Note that you are permitted to work with (not copy from!) other students on homework problems (and labs) if you acknowledge cooperation by writing “I worked with (name)” on the assignment. Use of a solution manual for doing homework is an unauthorized aid. All exams must be entirely your own work.

University Statement Defining Expectations for Classroom Conduct
All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Government Association By Laws, Article VI, Section 3, number 2. Students that engage in behavior that disrupts the learning environment may be asked to leave the class.

University Campus Safety Statement
Kansas State University is committed to providing a safe teaching and learning environment for student and faculty members. In order to enhance your safety in the unlikely case of a campus emergency make sure that you know where and how to quickly exit your classroom and how to follow any emergency directives. To view additional campus emergency information go to the University’s main page, www.k-state.edu, and click on the Emergency Information button.

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**What You Need:**
- A valid email address and your KSU WID
- A student access code: Purchase at bookstore or at MasteringPhysics.com
- The ZIP code for your school: 66502
- A Course ID: MPWYS1N2013S

**Register**
- Go to www.masteringphysics.com and click New Students under Register.
- To register using the Student Access Code, select Yes, I have an access code. Click Continue. Or click No, I need to purchase access online now.
- 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?” (yes, if you used Mastering in another course) and supply the requested information. Upon completion, 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.

**Log In**
- Go to www.masteringphysics.com.
- Enter your Login Name and Password and click Log In.

**Enroll in Your Instructor’s Course and/or Access the Self-Study Area**
Upon first login, you’ll be prompted to do one or more of the following:
- Join your MasteringPhysics course by entering the Course ID provided by your instructor.
- Enter a Student ID, if prompted. This is your KSU WID, a nine-digit number. Do not enter your KSU eID here.

Click Save and OK.

Congratulations! You have completed registration and have enrolled in your instructor’s MasteringPhysics course. To access your course from now on, simply go to www.masteringphysics.com, enter your Login Name and Password, and click Log In. If your instructor has created assignments, you can access them in the Assignments Due Soon area or by clicking View All in this area. Otherwise, click on Study Area to access self-study material.

**Support**

**Student Technical Support Line: 877.672.6877**
Monday – Friday 12pm – 8pm EST

Access Customer Support at www.masteringphysics.com/support, where you will find:
- System Requirements
- Answers to Frequently Asked Questions
- Additional contact information for Customer Support, including Live Chat