

PHY 112 – General Physics	Days: Tuesday, Thursday
SPRING 2015	Time: 1:30 – 2:45 pm
Instructor: Dr. Igor Shovkovy	Location: SANTN 331 (Polytechnic)
Office: Wanner Hall 340L	
Phone: 480-727-1953	
E-mail: Igor.Shovkovy@asu.edu	
Office hours: Mondays & Wednesdays, 10:30 a.m. – 11:30 a.m. & by appointment	

Course description: This is a continuation of PHY 111. The main body of this course is electricity and magnetism. The list of topics includes electric and magnetic fields, electromagnetic forces, circuits, electromagnetic induction, wave and rays optics, and optical instruments. (Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.)

Objectives: (i) obtain a basic understanding of the fundamental concepts and laws in physics; (ii) learn to apply these concepts qualitatively as well as quantitatively; (iii) develop critical thinking and analytical problem-solving skills.

Prerequisites: Pre-requisites: PHY 111 with C or better.

Textbook: *College Physics: A strategic approach, Vol. 2* (3rd edition with Mastering Physics) by R. D. Knight, B. Jones, and S. Field (ISBN: 9780321994127)

Homework and reading assignments are keyed to this textbook. At the bookstore, new textbooks should come prepackaged with a student [Mastering Physics](#) access kit. [Mastering Physics](#) is required from the very beginning of the course. If you buy a used textbook, then you must buy [Mastering Physics](#) separately at the bookstore or online at www.masteringphysics.com

Blackboard. Selected course materials will be posted on Blackboard (<https://myasucourses.asu.edu>). The Blackboard course name is **PHY 112: General Physics (2015 Spring)**

General policy: Attendance of all lectures is **required**. Students are responsible for all material presented in class, all homework, and for all changes to the schedule or plans announced in class. Minimal preparation for lecture is to do the reading assignment for that day. Reading assignments for each class is given in the [SCHEDULE of Lectures, Exams, and Homework assignments](#) on the **Blackboard** course web site. Absences will be excused **only** upon presentation of documentation of compelling circumstances. Only University authorized travel (supported by appropriate documentation) can be excused. Remember that you have to plan all other travel (if any) in accordance with the ASU student calendar – excuses such as “I planned this trip a long time ago” or “tickets are much cheaper on these dates” are not acceptable.

Recitations. Attendance of recitations is **required** and you have to attend **at least 60%** of all recitations in order to be eligible to take the final exam. During the recitation sessions you will be able to ask questions and to develop critical problem solving skills. The recitation instructor will determine your recitation score based on classroom participation and short quizzes given during the semester.

Homework. Homework is one of the most important components in this course. The main purpose of homework assignments is to help you to practically learn the material and build a solid understanding

of physics concepts. Solving physics problems effectively is a skill that you must develop by the end of the course. Lectures will cover the key concepts, but homework will help you to learn them. Reading the textbook is essential for deeper understanding of the main concepts and problem solving techniques used. In order to do well in this course, it is necessary to do all **homework** and **reading assignments**.

Your homework assignment are to be completed using [Mastering Physics](#). You will have about 10 Mastering Physics homework assignments. You can find these assignments only at Mastering Physics ([masteringphysics.com](#)). The due dates for all Mastering Physics assignments will be posted on your Mastering Physics assignment list as well as in the [SCHEDULE of Lectures, Exams, and Homework assignments](#). The [MasteringPhysics Course ID](#) is **SHOVKOVY2015Spring**

Clickers. Attendance and participation will be recorded via **TurningPoint Clickers**. TurningPoint clickers can be purchased at ASU bookstore. (Keep your receipt in case the clicker you purchased is defective.) NOTE: ResponseWare will NOT be allowed. You must register your clicker at Blackboard before **11:59 pm on 01/21/15** in order to earn your clickers credits. (Register your clicker at Blackboard: [myasucourses.asu.edu](#), choose our course, click “Tools” and choose “TurningPoint Registration Tool” at the bottom, then enter your clicker device ID given at the back of your clicker.) If you miss the deadline you will NOT be able to earn clickers points for the entire semester!

In case you lose your clicker you should purchase a new one and NOTIFY me immediately. You will receive full credit for correct answers, half credit for wrong answers, and zero credit for no response. You are responsible for bringing your Clicker to class for every lecture. If you forget your clicker you will NOT get any clicker credits for that lecture irrespective of what kind of excuse you may have. You may NOT use someone else’s clicker. If you do, you will not get any credit for this.

If your clicker stops working in the middle of a lecture, please, do NOT disturb the class telling everyone that your clicker doesn’t work. Instead you should quietly record the answers to all missed questions on paper and submit those answers to me after the lecture.

Electronic devices. The use of phones, iPods, and other similar electronic devices is **not** permitted during lectures, tests and exams. The use of laptops is allowed during lectures only for the purpose of taking notes. Text messaging, browsing Internet, placing/receiving calls, emails, etc. during class is prohibited. You will be asked to leave the class for this type of disruptive behavior.

Tests & final exam. There will be **three tests** during the semester on the dates shown in the tentative schedule below (see also the [SCHEDULE of Lectures, Exams, and Homework assignments](#) on Blackboard) and a **comprehensive final exam** on a date set by the University, see <https://students.asu.edu/final-exam-schedule>. Textbooks and notes will NOT be permitted during the tests and the final exam. (Only calculators and a single “Letter” size sheet of formulas will be allowed during tests and final exam.) NOTE: If the date of any test has to be changed (which is highly unlikely), the change will be announced in class and via Blackboard at least two weeks in advance. No changes may be made in the final exam schedule. No makeup exams will be allowed.

Grading policy:

Mastering Physics Homework	20 %
Clicker points	20 %
Recitations	10 %
Midterm exams (10%+10%+10%)	30 %
Final exam	20 %
TOTAL	100 %

The grades will be determined as follows:

A+ (more than 97%), A (90%-97%), B (78%-89.99%), C (66%-77.99%), D (54%-65.99%), E (less than 54%)

Tentative schedule

Dates	
13-Jan-15	First class
12-Feb-15	TP clickers' quiz #1 (Chapters. 20 - 23)
17-Feb-15	Test #1 (Chapters. 20 - 23)
10-Mar-15	No class -- Spring break
12-Mar-15	No class -- Spring break
26-Mar-15	TP clickers' quiz #2 (Chapters. 24 - 26)
31-Mar-15	Test #2 (Chapters. 24 - 26)
28-Apr-15	TP clickers' quiz #3 (Chapters. 17-19)
30-Apr-15	Test #3 (Chapters. 17-19); Last class
7-May-15	FINAL EXAM, see https://students.asu.edu/final-exam-schedule

For student **rights and responsibilities** see: <http://campus.asu.edu/downtown/rights-and-responsibilities>

Workload Expectations: The Arizona Board of Regents, the governing board for ASU, NAU, and the U of A, has a policy for how much time students should invest in their courses: "At least 15 contact hours of recitation, lecture, discussion, testing or evaluation, seminar, or colloquium, as well as a minimum of 30 hours of student homework is required for each unit of credit" (<http://azregents.asu.edu/rrc/PolicyManual/2-224-AcademicCredit.pdf>). Therefore, in a 3-credit course, students should expect to invest 45 hours in class meetings (or the online equivalent), as well as 90 hours doing homework and assignments—a total of 135 hours in any given session (A, B, or C). In this course and in other courses in your degree program, your faculty are committed to this standard because it promotes the breadth and depth of learning required in a first-rate university education. As you register for courses, keep this 135-hour standard in mind because during some semesters your work and/or family commitments may prevent you from taking a full load of classes.

ADA policy: ASU provides equal opportunity to qualified employees and students, and to members of the general public who have a disability and provides reasonable accommodation as appropriate in employment, the application for employment, services, programs, and activities. Individuals with a disability are those who have a physical or mental impairment that substantially limits one or more major life activity, have a record of such impairment, or are regarded as having such impairment. ADA coordinator must be contacted for assistance in all matters pertaining to compliance with this policy. The Disability Resource Center contact numbers are 480-965-1234 (Voice), 480-965-9000 (TTY).

Academic Integrity: Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <http://provost.asu.edu/academicintegrity>.

This course is offered by the College of Letters and Sciences. For more information about the college, visit our website: <https://cls.asu.edu/>. If you have questions or concerns, please send your inquiry to cls@asu.edu.

Last modified January 12, 2015