

## COURSE SYLLABUS

**SEMESTER: FALL 2014**  
**COURSE TITLE: Physics 102**  
**NUMBER/SECTION: PHYS 102, Section 00I/00S**  
**CRN: 30087**

### CONTACT INFORMATION

**Instructor:**

First Name: Lynda  
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**Instructor's Supervisor:**

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**Online Learning Support:**

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Office Hours: By Appointment

### COURSE OUTLINE OF RECORD

PREREQUISITES: PHYS 101 Physics I  
SCHOOL: Liberal Arts and Sciences  
PROGRAM: Liberal Arts  
CREDIT HOURS: 4  
CONTACT HOURS: Lecture: 3 Lab: 2  
DATE OF LAST REVISION: Summer, 2011  
EFFECTIVE DATE OF THIS REVISION: Fall, 2011

CATALOG DESCRIPTION: Introduces the physics of light, periodic and wave motion, electricity and magnetism, and concepts of modern and current physics.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Compute key performance parameters in periodic and simple harmonic motion and longitudinal and transverse wave motion, as exemplified by periodic mechanical disturbances, sound, and light.
2. Compute quantities related to light.
3. Solve problems involving the reflection and refraction of light and their applications, including lens and mirror performance and the construction of lenses.
4. Compute effective impedance values for series arrangement and parallel arrangements of resistors, capacitors and inductors and compute time constants for the exponential rise/decay of voltage/current.
5. Solve basic problems in series and parallel alternating and direct current circuits using Ohm's and Kirchoff's laws.
6. Solve basic problems in electromagnetic induction and transformers.
7. Solve basic problems in modern and current physics including (1) the structure of the atom, (2) radioactivity, the associated nuclear reactions, and the concept of half-life, and (3) fission and fusion reactions.
8. Use laboratory equipment to demonstrate scientific principles.
9. Recognize uncertainties in data. 10. Tabulate and graph data and compute results.
11. Work in teams.
12. Draw reasonable conclusions from quantitative data and communicate results to others.

COURSE CONTENT: Topical areas of study include:

Vibrations	Electric potential and electric energy
Sound	Electric charge and electric field
Capacitance	Electric currents and Ohm's law
DC circuits	Electromagnetic induction
AC circuits	Electromagnetic waves
Magnetism	Geometric optics
Wave optics	Nuclear physics
Atomic physics	Waves

## REQUIRED TEXT & MATERIALS

Title: Physics

Author: Paul E. Tippens

Edition: 7<sup>th</sup>

Publisher: McGraw-Hill

ISBN: 978-0-07-301267-4

Additional Materials: Scientific Calculator, such as a TI-30Xa or a TI-30IIs.

### HOW TO OBTAIN YOUR TEXTBOOK:

All books and materials, unless otherwise noted, can be purchased from the Ivy Tech online bookstore. To order the texts required for this class or any other on-line course, go to <http://www.ivytech.bkstr.com>. You can order all books and all materials for all courses from this site – regardless of whether you are taking the courses on campus or at a distance. Please note that you will need a copy of your course schedule to accurately order your books and materials. You may print a copy of your course schedule from Campus Connect at <http://cc.ivytech.edu>. Students who live in Indiana and surrounding states will normally receive their book order within one day from the time the book is shipped from the warehouse. Paying for overnight shipping on textbook orders from the bookstore is normally not a good use of your money as it does not

ensure overnight processing of your order – it only ensures that once the book order has been processed, it will be shipped out overnight.

### **SPECIAL TECHNOLOGY NEEDS**

Because this is a web-based course, it is expected that all students who enroll in the course have Internet access and a basic understanding of computer use (e.g., using e-mail, sending attachments via e-mail, using web browsers, using word processing software such as Microsoft Word). Also, it is expected that all students will regularly check their Ivy Tech e-mail accounts (located in Campus Connect). Within 48 hours is recommended. This is the PRIMARY method the instructor will utilize for contact with you.

Please visit the Distance Learning Web site at: <http://www.ivytech.edu/distance/> for more information related to technology requirements for online courses. Check with the nearest campus bookstore for educational pricing if additional software is required for this course.

### **COMPUTER DOWNLOADS**

Please visit the Click for Help tab for information about computer downloads. This tab provides you with important computer information, including security software, viewer software for users without Microsoft products, adobe reader, flash player, java, and more.

## **COLLEGE POLICIES**

### **Academic Honesty Statement**

The College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement.

Cheating on papers, tests, or other academic works is a violation of College rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.

### **Copyright Statement**

Students shall adhere to the laws governing the use of copyrighted materials. They must insure that their activities comply with fair use and in no way infringe on the copyright or other proprietary rights of others and that the materials used and developed at Ivy Tech Community College contain nothing unlawful, unethical, or libelous and do not constitute any violation of any right of privacy.

## **COURSE POLICIES & PROCEDURES**

### **Due Dates & Deadlines**

The Syllabus and Course Calendar are two important tools to help students understand the course, student and instructor expectations, and deadlines. Both documents can be found under the “Start Here” button in the course within Blackboard.

Students are required to submit work on time for a chance to receive credit. Deadlines for each assignment are summarized on the course calendar. Students should check the calendar frequently for deadlines and to be aware of what to expect next. Deadlines are subject to change.

Students are responsible for timely assignment submission. Should a computer system or network go down, students must still turn in work in a timely manner. Don't wait until the last minute – don't even wait until the last day. Plan ahead by seeking alternative means for submitting work before it is needed. Local libraries and all Ivy Tech Community College campuses can serve as alternative network and technology resources. Contact the closest/most convenient campus or other public lab for schedules and Internet availability. Not having access to the required software on a home or work computer is **not** a legitimate excuse for turning in homework late.

### **Attendance Policy – Don't Get Dropped from Class!**

While it is important to be timely and on-schedule throughout any course, students need to be aware of an important college policy. Ivy Tech performs administrative drops for students who do not “attend” class early in the semester. Attendance in an online course is determined by whether a student has submitted work or not. Assignments may actually be due on another day (see course calendar), but students need to turn in something worth points before the NSW deadline in order to avoid being dropped for non-attendance.

To avoid being dropped for non-attendance, students must submit *some* assignment from the course calendar no later than **Friday, September 5<sup>th</sup> before 11:59 PM EST**.

### **Instructional Method**

This is an online distance-learning course. Each week's assignments and readings are summarized on the Course Calendar, accessed from the “Start Here” button in Blackboard. It takes a great deal of discipline, self-motivation and effective time management skills to successfully complete an online course. Many students find it helpful to set aside specific times each week to work on course assignments.

### **Grades**

All grades will be maintained in Blackboard's online grade book. Students are responsible to track their progress by referring to the online grade book.

### **Make-Up Policy**

If you have a SERIOUS problem that can be documented/verified and that keeps you from submitting a paper or test on time, please contact your Instructor immediately. The Instructor will determine if the seriousness of your problem warrants an exception to the late assignment rule. Late assignments will be assigned a grade of “0” unless you have received prior approval from the Instructor. There are No make-ups for discussion boards.

If, however, you have planned events (vacation, wedding, birth of a child, surgery, etc.), you can work ahead on assignments with prior approval of the Instructor. In all cases, communication with the Instructor in advance is desired, whenever possible.)

You are responsible for timely assignment submission. Should your personal computer system or network go down, you must still turn in your work in a timely manner. Don't wait until the last minute. Plan ahead by seeking alternative means for submitting your work before you need to. Local libraries and all Ivy Tech Community College campuses can serve as alternative resources. Contact your campus or other public lab for schedules and Internet availability. Not having access to the required software on your home or work computer is NOT a legitimate excuse for turning in homework late.

Should an error occur while taking a Blackboard assignment, the faculty member may be able to reset the assignment. However, it is the student's responsibility to contact the instructor for resolution and to be aware of the deadline for the assignment. A faculty member may deny requests to reset assignments if they are received after the due date has passed. Based on this, it would be wise for a student to complete assignments several days before the due date to allow for any errors that may occur.

### **Last Day to Withdraw**

If a student wishes to withdraw from this course, students are responsible for completing an official withdrawal form with the registrar. The last day to withdraw from this course is

**November 15<sup>th</sup>, 2014.**

## COURSE COMMUNICATION

### **Instructor Commitment**

Ivy Tech Community College instructors are committed to responding to students within two business days. If a student sends communication, but does not receive a response, they should double-check that the correct communication method was used and that the correct location is being checked for a reply. Students can contact their local Distance Education Support with questions.

NOTE: Messages are very different from Email. Students should carefully review the information below to ensure they are sending and receiving course communication properly.

**Email:** all students must use the email function of the course for course-related communications. Students can send email from within the course in Blackboard, but will not receive responses inside the course. All emails are received in the Campus Connect email system. Students can also use the Campus Connect email system to send email.

To access email from within the course:

1. Log into Blackboard & enter the course.
2. Click on 'Communication & Tools', then send email.
3. Please DO NOT use the MESSAGES feature inside Communication & Tools.
4. Select "All Instructor Users" to email the instructor.
5. To send an email to another member of the class, choose Select Users and choose the name(s) from the list. Use the right-facing arrow to move the person into the "recipient" box.

To access Campus Connect, go to: <http://cc.ivytech.edu>.

**Online Communication Etiquette:** Students are expected to uphold their responsibilities in terms of appropriate and professional communication with faculty and peers. Please review the 'Students Rights and Responsibilities' section of the student handbook and review common netiquette (Internet etiquette) practices, like those found at: <http://www.albion.com/netiquette/>.

## ASSIGNMENTS & GRADING

### Assignment Specifics

Specific details on the assignments in the course are given in a document entitled “Assignment Specifics.rtf”, which can be found in the syllabus section, under the “Start Here” button of blackboard.

### How is my grade calculated?

Homework Assessments (20 @ 15 points each)	300 Points
Discussion Boards (5 @ 10 Points Each)	50 Points
Lab Quizzes (10 @ 15 Points Each)	150 Points
Proctored Midterm Exam	250 Points
Proctored Final Exam	<u>250 Points</u>
	1000 Points

The percentage grading scale for this course is as follows:

900 - 1000 = A
800 - 899 = B
700 - 799 = C
600 - 699 = D
0 - 599 = F

\*\* Curving grades and/or extra-credit is not permitted due to regional policy. \*\*

## ADDITIONAL SUPPORT

### Click for Help

Log into Blackboard at <http://online.ivytech.edu> and visit the “Click for Help” tab for information about computer downloads. This tab provides students with important computer information, including security software, viewer software for users without Microsoft products, adobe reader, flash player, java, and more.

### Disabilities Services

Students with questions or needs for disabilities support services should contact their local Disabilities Support Services director/coordinator. In the future, it is recommended that students contact Disabilities Support Services at least 30 days before the start of the semester. *The contact information listed here is for the disabilities support director/coordinator at the instructor’s local campus.* For information about disabilities support services at another campus, please visit: <http://ivytech.edu/dss/> or Campus Connect (<http://cc.ivytech.edu>).

### Course Participation and Financial Aid Eligibility

Course activities and assignments are designed to help you practice and apply what you are learning in class. As a result, students who attend class, complete assignments, and actively participate in class activities generally make better grades and are more likely to reach educational goals.

When you accept federal financial aid, you agree to abide by the regulatory requirements that accompany receiving those funds. Those requirements are:

- The expectation that you will complete your courses. Dropping or withdrawing from a class could negatively impact your financial aid eligibility and could result in you owing money back to the Department of Education.
- The expectation that you will complete your degree within a reasonable timeframe. Completion of your degree within a reasonable timeframe means that you will graduate before taking more than 150% of the credit hours needed for your program. (Example: financial aid will not pay for more than 90 credit hours if you are enrolled in a 60 credit hour degree program.)
- The expectation that you will maintain a minimum of a 2.0 cumulative grade point average.

Failure to meet any of these requirements could jeopardize your financial aid funding. You should meet with an advisor or a member of the financial aid team if you have any questions.