

IVY TECH COMMUNITY COLLEGE – REGION 03
SYLLABUS PHYS 102: Spring 2014

Instructor Information:

Instructor:	James Cutright	E-mail:	jcutright@ivytech.edu
		Phone:	260-482-9171 X 2580
Campus and Office:	Fort Wayne North Campus Student Life: 152	Office Hours:	M: 1:00—5:00pm T: 10:00am—2:00pm W: 3:00—5:00pm

Physical Sciences Program Chair:

Instructor:	Dr. Provi Mayo	E-mail:	pmay01@ivytech.edu
Campus:	Fort Wayne North Campus	Phone:	260-480-2070
Office:	Student Life: 152	Office Hours:	By appointment

Course Information:

Course Title:	Physics II (PHYS 102)	Meeting Time:	Tuesday 5:00-9:50 pm
Class #:	29086	Section:	40C
Classroom:	Student Life: 151		

COURSE TITLE: Physics II
COURSE NUMBER: PHYS 102
PREREQUISITES: PHYS 101, Physics I
SCHOOL: Liberal Arts and Sciences
PROGRAM: Liberal Arts
CREDIT HOURS: 4
CONTACT HOURS: Lecture: 3, Lab: 2

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. 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 Kirchhoff'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 area of study include –

Vibrations	Electric Potential and Electric Energy
Sound	Electric Charge and Electric Field
Capacitance	Electric Current and Ohm's Law
DC Circuits	Electromagnetic Induction
AC Circuits	Magnetism
Geometric Optics	Atomic Physics
Wave Optics	Nuclear Physics
Waves	

Laboratory Experiments will be selected from the topics above.

REQUIRED TEXT AND MATERIALS:

Giancoli, Physics 7th: Volume 2 Edition Person Prentice Hall, 7th Edition

COURSE SOFTWARE:

This course uses online software from the textbook publisher -- "Mastering Physics." You **must** have access to this software online. The website is www.pearsonmylabandmastering.com, and the course ID for this course will be posted on Blackboard. To register, you will need an access code which comes bundled with the text, or you may purchase it separately.

COMPUTER DOWNLOADS:

This link provides you with important computer information, including security software, viewer software for users without Microsoft products, adobe reader, flash player, java, and more.
<http://www.ivytech.edu/helpdesk/tech/downloads.html>

OPTIONAL CAMPUS SUPPORT

You are welcome to use the services and equipment available at the Ivy Tech Community Campus most convenient to you. Services include academic advising, equipment, libraries, and tutoring. Please locate the Ivy Tech Community College campus most convenient to you at <http://ivytech.edu/campuses/>

For distance learners, the Virtual Library offers full-text journals, books, and other resources essential for completing course assignments. Please visit <http://ivytech.edu/library/distance-learning/index.html> to access Resources and Services for Distance Learners.

MATERIALS AND EQUIPEMENT SUPPLIED BY STUDENTS

Paper, pencils, ruler/straight edge, graph paper, scientific calculator (no graphing calculators)

EVALUATION PROCEDURES:

- | | |
|------------------------|----------|
| 1. Exam 1..... | 100 pts |
| Exam 2..... | 100 pts |
| Exam 3..... | 100 pts |
| Exam 4/Final Exam..... | 100 pts |
| Online Homework..... | 300 pts |
| Written Homework..... | 100 pts |
| Labs | 200 pts |
| <hr/> | |
| Total points..... | 1000 pts |
2. Grading Scale
90%-100% = A
80%-89% = B
70%-79% = C
60%-69% = D
Below 60% = F
3. Assignments and Quizzes
The assignments and quizzes are due as directed by the instructor and may not be made up, unless indicated by the instructor.
4. Exams
The dates for the exams are shown on the weekly outline. Only one exam may be made up during the semester. To make up an exam you **must** inform your instructor in advance of the scheduled exam time. Failure to notify an instructor in advance will result in an exam score of zero. Exams must be made up within one week of the original test date. There are no “retries” on any exams.
5. Final Exam
This final exam is scheduled during the last week of class.

GENERAL INFORMATION:

1. Attendance is very important. Students are expected to attend all classes. Students are responsible for all class notes, materials, and problems assigned whether absent or present. Excessive absences will have a negative effect on the learning experience. Students are expected to arrive at class on time and stay for the duration of the class.
2. Cell Phones and pagers are to be turned off or turned to ‘vibrate’ during class. Laptop and other computers are to be turned off during class, except as required for current classroom activity.
3. Seek help immediately if the work becomes too difficult. Help is available in the following ways:
 - Stop by the Center for Academic Excellence, Main Campus Room 2380 for free tutoring.
 - Form a study group with classmates and meet before or after class.
 - Find someone who has already successfully completed the course.
 - Use the resources you purchased with your textbook.

- See the instructor before or after class or during office hours.
4. Exams, once taken and graded, are the property of Ivy Tech Community College and are confidential. Students may review tests and ask questions but may not keep the test itself.
 5. It is college policy that no food or beverages are allowed in the classroom

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.

PLAGIARISM STATEMENT:

Presenting within one’s own work the ideas, representations, or words of another person without customary and proper acknowledgment of that person’s authorship is considered plagiarism. Students who are unsure of what constitutes plagiarism should consult with their instructors. Claims of ignorance will not necessarily excuse the offense. The instructor reserves the right to use the resources of the College to check student work for plagiarism.

ADA STATEMENT:

Ivy Tech Community College seeks to provide reasonable accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact the Office of Disability Support Services.

<p>Todd Nichols Director, Disability Support Services Office wnichols3@ivytech.edu 260-480-4110</p>	<p>Location: North Campus, Harshman Hall Rooms HM1714 and HM1710 3701 Dean Drive Fort Wayne, IN 46835</p>
---	---

Ivy Tech Growing Greener

Ivy Tech Community College–Northeast is committed to the development and implementation of a comprehensive sustainability plan. We're emphasizing our responsibility to go green. To that end, we are asking students, faculty, and staff to actively participate in energy conservation measures and proper recycling on campus. The recycling bins located in classrooms and offices are for paper and paper products only. Ivy Tech participates in single-stream recycling for other items. All aluminum, glass, and plastic beverage containers can co-mingle in the same recycling bins located in the hallways. Please remember to empty the liquid from your containers before depositing them in the bins. Any materials that cannot be recycled should be placed in garbage cans. It is also important to turn off lights and computers when leaving a room. Together, we can make an impact on conserving our limited resources. Remember to reduce, reuse, and recycle!

BREATHE EASY:

Ivy Tech–Northeast is committed to providing a healthy, comfortable and productive environment for the students, faculty and staff of this campus. The use or sale of any tobacco product is prohibited on college-owned, operated, or leased property or vehicles at any time. The policy applied to all Ivy Tech–Northeast facilities and grounds, regardless of location. Smoking, including the use of an e-cigarette, shall not be permitted in any enclosed space and is also prohibited outdoors on all college campus property, including parking lots. This policy applies to all students, faculty, staff and visitors. Tickets and fines will be issued to violators.

COURSE OUTLINE:

<u>Week</u>	<u>Date</u>	<u>Chapter and Sections</u>
1	8/25	Introduction, Start CH 16
2	9/1	Finish CH 16, Lab 1
3	9/8	CH 17, Lab 2
4	9/15	CH 18, Lab 3
5	9/22	Exam 1 (CH 16—18) CH 19
6	9/29	CH 20, Lab 4
7	10/6	CH 21, Lab 5
8	10/13	CH 11 and CH 12, Lab 6
9	10/20	Exam 2 (Chapters 11, 12, 20, 21), CH 22
10	10/27	CH 23 Lab 7
11	11/3	CH 24, CH 25 (S) Lab 8
12	11/10	Exam 3 (Chapters 22—25) CH 27
13	11//17	CH 28 (S) CH29 (Student S), Lab 9
14	12/1	CH 30, Lab 10
15	12/8	CH 31
16	12/15	Exam 4/Final(Chapters 27—31)

Note: The abbreviation “S” means selected topics. This means that only selected topics from that chapter will be covered, and not the entire chapter.

This course outline may vary at the discretion of the instructor.

IMPORTANT DATES:

First Day of Classes:	8/25	Payment Due:	8/21
Last Day of Classes (Final):	12/15	Last Day to Withdraw (100% Refund):	9/4
		Last Day to Withdraw:	11/14
First Day of the Semester:	8/24	Labor Day (College Closed):	9/7
Last Day of the Semester:	12/19	Fall Break (No Classes):	11/24—11/29

University-Transfer Division

Grading and Makeup Policies

General Policies Regarding All Classes and All type of Assignments

- The instructor owns the copyright to all original material, and this material may not be duplicated without permission from the instructor.
- Computer/technical problems (printer ran out of ink, computer locked up, flash drive was stolen, etc.) do not constitute an excuse for turning anything in late.
- No late papers or assignments may be turned in during the last week of the semester.
- Being late or not attending class can negatively affect your grade. You are responsible for all missed material due to any absences.
- In case of a documentable emergency, the policies may be adjusted at the discretion of the instructor.

Classroom Etiquette

- Cell phones must be turned off or put in vibrate mode. Texting, chatting, tweeting, and browsing various other social media sites is not allowed during class unless the activity is a part of the daily class activities and is assigned by the instructor. Failure to adhere to this policy could result in a loss of in-class activity points.
- Children under 16 are not allowed in the classroom.
- You must gain permission from the instructor before you can tape any portion of the class.
- Laptops are to be used as the instructor determines. The instructor reserves the right to ask that they be stored away during class.
- Everyone deserves to be respected for their opinions. This includes your instructor, your classmates, and yourself.

Homework and Assignments

- Homework and assignments are to be submitted via blackboard and are due at the **beginning** of class on the due date unless otherwise indicated by the instructor.
- If you are absent from class it is still expected that you will turn your homework or assignment, via blackboard, on time.
- Late homework and assignments may be turned in within **one** week of the due date if permitted by the instructor, but the late homework or assignment will be given only half credit. Certain types of homework or assignments may not be turned in late for any amount of credit. These are clearly identified in the class syllabus.
- After one week an assignment or homework will no longer be accepted for credit.

Papers and Projects

- Papers and projects are to be submitted via blackboard and are due at the **beginning** of class on the due date unless otherwise indicated by the instructor.
- If you are absent on the due date it is your responsibility to make sure the paper or project is still turned in on time.
- The instructor reserves the right to reject any paper that is not completed according to directions given or that fails to meet general college-level standards.
- The responsibility for proof regarding the originality of a paper rests with you, not the instructor.

- **In the absence of clearly stated guidelines within the course syllabus**, late papers and projects may be accepted with the following late penalties as a one-time exception. Certain types of papers or projects may not be turned in late for any amount of credit. These are clearly identified in the class syllabus.
 - If it is turned in within 24 hours of the due date there will be a 10% reduction.
 - After 24 hours and up to one week there will be a 50% reduction.
 - After one week the paper or project will no longer be accepted for credit.

Quizzes and in-class assignments

- Quizzes and in-class assignments can **not** be made up.
- If you are absent for any reason on a day with a quiz or in-class assignment you will receive 0 points for it.

Tests & Major Assignments

- Only one test or major assignment (i.e. speech) a semester may be made up.
- If you know you will have to miss a test or major assignment, you must make arrangements with the instructor before the due date in order to take the test or turn in the assignment at an alternate time.
- In an emergency situation (i.e. flat tire, emergency room visit) you must contact the instructor via means outlined in the syllabus to make arrangements to make up the test or major assignment.
- Arrangements to make up a test or major assignment must be made with the instructor within one week of the original date of the test.

Labs

- Labs can not be made up under any circumstances.
- Proper safety guidelines must be followed at all times. Failing to follow safety guidelines will result in a score of 0 on the lab, and the student will be asked to leave the classroom during the lab.
- A score of 0 will be entered for any labs that are missed.

Grading

- If questions about class policies and procedures or grades arise during or after the semester, you must meet with your instructor to discuss this first prior to speaking with a program chair or any other college representative.

Midterm

- Midterms may not be made up.

Final Exam

- There is no make-up for the final exam.

End of Semester

- The last class meeting is the end of the semester. Nothing may be turned in or completed after that date. All graded assignments should be picked up by the end of this meeting or they will no longer be available.