



Course Syllabus

PHY 116 - Introduction to Physics II

The session begins on the 1st day of the enrollment month and ends on the last day of the 6th month.

Instructor Information

Instructor Name: Jeremy Durelle

UIU Faculty Email: durellej85@uiu.edu

Availability: E-mail Monday-Friday

Course Description

Semester Credits: 4

Catalog Course Description: An exploration of introductory physics topics including electrostatics, electricity, magnetism, light, physical and geometric optics, and nuclear physics. Laboratory experiments are used to help reinforce and physically demonstrate the concepts taught.

Prerequisites: PHY 115

Credit Hour Policy: As a requirement of HLC Accreditation, all UIU courses, regardless of meeting schedule or instructional mode, follow the Federal Credit Hour Definition. As such, each credit hour earned at UIU is equivalent to a minimum of 45 hours of student engagement.

For more information on how specific instructional modes meet this requirement, please see UIU's Policy Guidelines for Instructional Time Expectations: [UIU Policies](#).

Pivot Interactives

www.pivotinteractives.com

College Physics 2e (OpenStax)

College Physics 2e (OpenStax) - <https://openstax.org/details/books/college-physics-2e>

Course Outcomes

- Students will be able to apply appropriate physical laws to solve electrostatic problems. (e.g. Electric field and potentials).
- Students will be able to apply appropriate physical laws to solve complex DC and simple AC circuit problems with resistors, capacitors and inductors.
- Students will be able to apply appropriate physical laws to solve problems involving magnetism (including the generation of magnetic fields, calculation of magnetic forces, electromagnetic induction, applications including generators and motors).
- Students will be able to understand the wave and particle nature of light and its generation in atoms (Bohr model).
- Students will be able to apply the laws of reflection and refraction and the principles of interference and diffraction of light to solve problems, including ones that involve optical devices.
- Students will be able to apply appropriate physical laws to solve problems involving nuclear physics and radioactivity.

General Education Assessment

Upper Iowa University is committed to ensuring that all undergraduate students participating in its general education program receive a broad education, while gaining essential professional skills across multiple disciplines. The Peacock Professional Experience provides nine learning outcomes, each of which articulates a specific skill students should gain, and are supported by knowledge provided by the courses students choose to take within the guidelines of the program. The outcome assessed in this course is the last outcome listed under Course Outcomes.

Course Requirements and Grading Criteria

Course Requirements

1. Review the entire course syllabus before beginning the course. Be sure you understand the course procedures and objectives. Procedures do change, so please review ALL requirements and policies even if this is not your first course including, but not limited to, administrative withdrawal. Your course status will be affected if policies are not followed.
2. Students who develop a regular time schedule and set goals for unit completion are most successful in completing courses within a specific timeframe.
3. The feedback you receive from the instructor of your work is critical to your success on subsequent lessons. These comments allow you to improve and modify the next units if necessary.
4. Assignments are submitted using uiuLearn. Please complete all assignments and modules in order.
5. If the information in your syllabus is not clear or if units are not graded within a reasonable period of time, please contact your instructor using uiuLearn's email tool, if that doesn't work contact the Self-Paced Program office. We would like the opportunity to address concerns, however, we may not know unless we hear from YOU!
6. ALWAYS keep a copy of your completed work when submitting it for grading.
7. Assignment & exam work must be included with your submission at the time of submission and must show all calculations and logic used to arrive at your answers.

Grading Criteria

Criteria	Points Percentage
Unit Assignments	15%
Midterm Exam	22.5%

Criteria	Points Percentage
Lab Activities	25%
Final Exam	37.5%

Extension Policy

Students will be allowed to request an extension and receive an 'X' (extension grade) at the end of their original six-month enrollment period if:

- A minimum of one assignment has been received for grading per guidelines AND
- All course units and exams are not completed and submitted OR
- A course withdrawal has not been initiated.

Note: The fee for a self-paced extension is \$99 per course. The request for an extension must be submitted no earlier than one month before the end of the course and no later than a week before the end of the course.

Extension grade details

- When the extension is granted and an "X" grade is issued, the student will receive a four-month enrollment period to complete the course.
- Students do not have the option to withdraw from a course after the initial six-month enrollment period.
- An 'X' grade posted to the student's official record will be replaced with a final letter grade; however, the extension will remain on the official transcript as a notation.
- If the course is not completed by the end of the extension period, the instructor will assign a final grade (A-F) based on work completed in relation to the total course requirements.
- If credit is not earned by the end of the extension period, students can re-enroll and repeat the entire course for credit.

Note: Students are not reported as enrolled during the extension period and are not eligible for student loan deferment. No more than one extension will be granted.

Grades and Feedback

All graded work available must be posted in the uiuLearn Gradebook by Sunday at 11:59pm (CT) one week prior to the course drop date, as well as posted by Sunday at 11:59 pm prior to the final week.

Turnitin

Turnitin is a tool for both teachers and students to ensure academic integrity by checking the originality of submitted papers to avoid issues of plagiarism and academic dishonesty.

Students should be aware that Turnitin scans submitted work and compares it to ALL other sources on file.

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Course Schedule

Unit 1

Electric Forces & Fields	
	Electrostatic Forces
	Electric Fields
	Electric Fields Assignment
	Lab Activity: Exploring Electric Repulsion

Unit 2

Electric Potential	
	Electrostatic Potential Energy
	Electric Potential
	Electric Potential Assignment
	Lab Activity: Introduction to Electric Repulsion

Unit 3

Circuits	
	Capacitors
	DC Circuits
	Circuits Assignment
	Lab Activity: Ohm's Law

Unit 4

Magnetism	
	Magnetic Fields
	Lorentz Force
	Magnetism Assignment
	Lab Activity: Magnetic Fields Caused by Currents

MIDTERM EXAM

Unit 5

Electromagnetic Induction	
	Magnetic Flux
	Lenz' Law
	Electromagnetic Induction Assignment
	Lab Activity: Currents Caused by Magnets

Unit 6

Light & Electromagnetic Waves	
	Light
	Electromagnetic Waves
	Electromagnetic Waves Assignment
	Lab Activity: Joly Photometer

Unit 7

Optics, Mirrors, & Lenses	
	Ray Optics
	Mirrors & Lenses
	Optics Assignment

Optics, Mirrors, & Lenses	
	Lab Activity: Exploring Index of Refraction

Unit 8

Atomic Physics	
	Atomic Theory
	Bohr Model
	Atomic Physics Assignment
	Lab Activity: Gas Emission Spectra

Course Expectations

Email

Upper Iowa University employees and students are issued a UIU email account (doej@uiu.edu). University email communications will only be sent to UIU email address. Faculty and staff are not obligated to respond to students using non-UIU email accounts.

Professional Writing and Speaking Guidelines

Communications in class and online should follow the Student Conduct and Discipline, Respect for the University Environment, and Code of Student Responsibility in the [Student Handbook](#). Respect the opinions of others using appropriate language and communications.

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University Policies

Withdrawal (W)

If a student decides to withdraw from a course before the end of an enrollment period, the student's charges, financial aid, tuition assistance, and/or veteran benefits could be affected. All students should consult with the Business Office and Financial Aid Office to understand the financial impact of withdrawing prior to initiating the withdrawal process.

Tuition adjustments are independent from academic and financial aid deadlines. Upon receiving a request for withdrawal, using the number of lessons submitted as compared to the total due, a refund of tuition is made according to the following guideline.

On or before the first day of the enrollment period* 100%

After the first lesson through 10% of the enrollment period 90%

After the first 10% through the first 25% of the enrollment period 50%

After the first 25% of the enrollment period 0%

*Enrollment is measured by the number of assignments to be submitted during a six-month period of time, as determined by the University, during which semester credits are earned toward graduation. The refund/repayments shall be calculated using the percentages noted above as determined using the number of assignments completed and the number of assignments yet to be submitted.

For example, if a student submitted 2 of 17 assignments, they completed 11.76% of the class assignments. The student would be refunded 50% of the tuition cost.

For students from Wisconsin, Maryland, Georgia, Oregon, or Arizona, state laws apply. For students enrolled through the cpacredits.com program, no refund is allowed after the first two weeks.

Students who withdraw from a course prior to submitting the first assignment, or who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee of \$99.

Course withdrawal may impact financial aid eligibility. A financial aid counselor is available to discuss this decision.

Upper Iowa University is required to use a pro-rata schedule to determine the amount of Title IV aid the student has earned at the time of withdrawal. If financial aid funds have been released to the student because of a credit balance on the student's account at Upper Iowa University, the student may be required to repay some or all of the amount released to the student. This policy is subject to federal regulations. Contact the Financial Aid Office for details.

Withdrawing from a course in progress may result in significant student account charges. Consult with the Business Office before withdrawing. For more information on financial aid implications, go to uiu.edu/financialaid.

Administrative Withdrawal (AW)

A grade of AW (administrative withdrawal) is recorded for any course from which a student is administratively withdrawn. **At least one complete assignment/unit must be received and verified by the instructor within the first 60 days of the enrollment period or the student will be administratively withdrawn from the course.** Students who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee of \$99. Non-Attendance (NA): Never attended grades are not applicable to the Self-Paced Degree Program.

Academic Accommodations

It is the policy of Upper Iowa University to ensure equal access to educational and co-curricular activities to students with disabilities as mandated by the Americans with Disabilities Act Amendments Act (ADAAA) and Section 504 of the Rehabilitation Act of 1973. A student seeking accommodations should contact the Director of Student Accessibility Services as early in the session as possible. In order to receive accommodations, students are required to disclose their disability to the Director by completing an application for services that can be found on the Student Accessibility Webpage. In addition to the application packet, the student is required to submit supporting documentation. Submit these to the Student Accessibility Services Office either in person or by email/Fax. A brief interview, in-person, by phone or virtually, with the Director will confirm or deny the accommodations requested. The Student Accessibility Services Office will email accommodation letters to the appropriate professor, the student, and the student's advisor. Additionally, students should work

cooperatively with their instructors throughout the session to make sure that their accommodations are appropriate and effective.

Upper Iowa University (UIU) provides closed captioning/transcriptions in acknowledgment of the Americans Disability Act, Rehabilitation Act, and various state laws. The information displayed is computer generated and not reviewed before being published. UIU makes no representations or warranties and expressly disclaims any responsibility or liability with respect to any errors or omissions in, or the accuracy, reliability, timeliness, or completeness of, any information that appears in a closed caption or transcript.

Contact the Director at (563) 425-5949, accessibility@uiu.edu or stop by the office on the 2nd floor of the Student Center, Office of Student Life, Room 229.

Emergency Directives: (Fire, Natural Disaster, Threat on campus, etc.)

In accordance with Upper Iowa University's emergency management plan, any student that requires assistance in the event of an emergency (Fire, natural disaster, threat on campus) is responsible for notifying their instructor of the need for assistance. (Evacuation, and/or indoor safety protocols) This information will be held confidential and only needed in the unlikely event that there is an emergency.