

COURSE INFORMATION - SYLLABUS

PHYS:1511 Spring 2021 College Physics I

- Instructor:** Y. Onel (yasar-onel@uiowa.edu)
153 VAN; 335-1853
- Office Hours:** 1:30-4:30 p.m. Wednesday (online through Zoom)
Students may confer with the instructor at other times only after making an appointment at the lecture.
- Lecture:** 9:30 a.m. - 10:20 a.m. MWF; Lecture Room 2, VAN (on-line- Zoom)
- DEO:** Phil Kaaret; Professor & DEO; philip-kaaret@uiowa.edu
- Text:** Physics, Volume I, 10th edition, Cutnell & Johnson
- Lab Manual:** Will be provided through ICON.
- Registration:** Changes in course registration including adding, dropping, and changes in sections, will be made in Room 203 VAN between the hours of 8-12 and 1-5 Mon-Fri.
- Course Description:** This course is intended for pre-medical, pre-dental, and other students who desire an algebra-based physics course (without calculus). Motion, mechanics, fluid motion, heat thermodynamics, waves and sound are covered. Numerical examples and lab experiments are chosen to illustrate basic physical principles. Course grades are based on quizzes, mid-term exams, a final exam, lab performance, and class participation. Each week three lectures are given by the course instructor and one three-hour lab is conducted by a teaching assistant. The Discussion Section is a problem-solving session conducted by a teaching assistant. Graduate teaching assistants will also provide online discussion times to assist with problem solving. This course will meet virtually (Synchronous lecture, lab and discussion). Live lectures and office hours are going to be via Zoom, Labs are going to be virtual, quizzes and exams are going to be through ICON. You are required to register to the Zoom lecture before attending to any of the sessions. The links for lectures and registration are at the end of this syllabus.
- Homework:** Problems will be assigned in class but will not be collected nor graded. There will be no Wiley Plus homework assignments in this course.
- Laboratory:** The labs will be held under the supervision of your TA, who will grade your laboratory reports. Discuss the grading of your assignments with your TA.
- Discussion Sessions:** The discussion sessions will be conducted under the supervision of a TA (online through Zoom). "**Check Your Understanding**" questions in the textbook is not relevant. We suggest you come to lectures and discussion sessions.

Exams:	<p>The three exams and the final exam will be closed book. The final exam is comprehensive. The date of the final exam will be announced on the course website under: http://physics.uiowa.edu/resources/course-webpages</p> <p>Quizzes are pop-quizzes, and it must be taken in class (Icon) There is no schedule and no prior announcement.</p> <p>Exam I: February 24 Exam II: March 31 Exam III: April 28</p>
Course Grade:	<p>Exams: 15 % x 3 Final Exam: 25 % Labs: 15 % Quizzes: 15 %</p>
Tutoring:	<p>TAs will be available for free tutoring in room 310 VAN during the hours posted (we expect on-line tutoring). Students are permitted to seek help from classmates in preparing their homework. While you are encouraged to seek help from TAs, do not expect them to do your homework for you.</p>
Writing Service:	<p>For services and programs please see: writingcenter.uiowa.edu</p>
Posting of solutions:	<p>Homework solutions will be available on icon, a week after the assignment.</p>
When to seek help from the instructor (office hours):	<p>Homeworks: when you don't understand a solution that has been put on reserve.</p> <p>Exams: Questions about grading (it is not encouraged that this practice become a habit).</p> <p>Understanding of physical concepts, lecture topics, and textbook topics. Students visiting for these purposes will be most appreciated.</p> <p>Feedback on your TA's performance.</p>
Occasions to seek help from your section TA (instead of the instructor):	<p>Homework: Questions about solutions to the problems, lecture and textbook topics. Laboratories: All questions</p>
Course Web Page and Course ICON Site:	<p>Homework assignments will be shown on the course webpage. The solutions to the homework problems and exams as well as other posted materials will be on the ICON site.</p>

COURSE CONTENTS (Tentative)	
Chapter 1	Introduction
Chapter 2	Kinematics in One Dimension
Chapter 3	Kinematics in Two Dimensions
Chapter 4	Forces & Newton's Law of Motion
Chapter 5	Dynamics of Uniform Circular Motion
Chapter 6	Work and Energy
Chapter 7	Impulse and Momentum
Chapter 8	Rotational Kinematics
Chapter 9	Rotational Dynamics
Chapter 10	Simple Harmonic Motion
Chapter 11	Fluids
Chapter 12	Temperature and Heat
Chapter 13	The Transfer of Heat
Chapter 14	The Ideal Gas Law and Kinematic Theory
Chapter 15	Thermodynamics
Chapter 16	Waves

LAB SCHEDULE	
January 25	NO LAB
February 1	i0: iOLab Setup
February 8	i1: Introduction to iOLab and Laboratory Measurements
February 15	i2: Constant Acceleration
February 22	NO LAB
March 1	NO LAB
March 8	i3: Newton's Laws I - Basic Relationship Between Force, Mass, and Acceleration
March 15	i4: Newton's Laws II - Modified Half Atwood Machine Collisions in 1D
March 22	i5: Collisions in 1D
March 29	NO LAB
April 5	i6: Rotational Motion
April 12	NOLAB
April 19	i7: Simple Harmonic Motion I - Springs
April 26	NO LAB
May 3	i8: Simple Harmonic Motion II - Simple Pendulum
May 10	FINALS WEEK

Regarding lab manuals, equipment rental, etc.

- There is no lab manual to purchase. All instructional materials for lab will be provided for you on ICON.
- Students are required to rent or purchase an iOLab device. The device may be rented or purchased here: <https://store.macmillanlearning.com/us/product/iOLab-Version-2.0/p/1464101469>
- A PC or Mac with a standard USB port is required to use the iOLab device. If your computer only has USB-C or Thunderbolt, you will need to purchase an adapter.

UI and the College of Liberal Arts and Sciences INFORMATION FOR UNDERGRADUATES

Absences and Attendance

Students are responsible for attending class and for contributing to the learning environment of a course. Students are also responsible for knowing their course absence policies, which will vary by instructor. All absence policies, however, must uphold the UI policy related to student illness, mandatory religious obligations, including Holy Day obligations, military service obligations, unavoidable circumstances or University authorized activities. Students may use the CLAS absence form to aid communication with the instructor who will decide if the absence is excused or unexcused. The form is on ICON in the top banner under "Student Tools." More information is at <https://clas.uiowa.edu/students/handbook/attendance-absences>.

Academic Integrity

All undergraduates enrolled in courses offered by CLAS have, in essence, agreed to the College's [Code of Academic Honesty](#). Misconduct is reported to the College, resulting in suspension or other sanctions, with sanctions communicated with the student through UI email. Visit this page for information: (<https://clas.uiowa.edu/students/handbook/academic-fraud-honor-code>).

Accommodations for Disabilities

UI is committed to an educational experience that is accessible to all students. A student may request academic accommodations for a disability (such as mental health, attention, learning, vision, and physical or health-related condition) by registering with Student Disability Services (SDS). The student is then responsible for discussing specific accommodations with the instructor. More information is at <https://sds.studentlife.uiowa.edu/>.

Administrative Home of the Course

The College of Liberal Arts and Sciences (CLAS) is the administrative home of this course and governs its add/drop deadlines and related policies. Other colleges may have different policies. CLAS policies may be found here: <https://clas.uiowa.edu/students/handbook>.

Class Behavioral Expectations

Students are expected to comply with University policies regarding appropriate classroom behavior as outlined in the [Code of Student Life](#). This includes the policies and procedures that all students have agreed to regarding the Steps Forward for Spring 2021 in response to the COVID-19 pandemic. Particularly, all students are required to wear a face covering when in a UI building, including a classroom. In addition, the density of seats in classrooms has been reduced; in some instances, this will allow 6 feet or more between students while other cases, it may be less. Regardless, wearing a face covering and maintaining as much distance as possible are vital to slowing the spread of COVID-

19. In the event that a student disrupts the classroom environment through their failure to comply with the reasonable directive of an instructor or the University, the instructor has the authority to ask that the student immediately leave the space for the remainder of the class period. Additionally, the instructor is asked to report the incident to the [Office of Student Accountability](#) for the possibility of additional follow-up. Students who need a temporary alternative learning arrangement related to COVID-19 expectations should contact [Student Disability Services arrangements/](#); +1 319 335-1462.

Class Recordings: Privacy and Sharing

Some sessions of a course could be recorded or live-streamed. Such a recording or streaming will only be available to students registered for the course. These recordings are the intellectual property of the faculty, and they may not be shared or reproduced without the explicit **written** consent of the faculty member. Students may not share these sessions with those not in the class; likewise, students may not upload recordings to any other online environment. Doing so is a breach of the Code of Student Conduct and, in some cases, a violation of the Federal Education Rights and Privacy Act (FERPA).

Communication and the Required Use of UI Email

Students are responsible for official correspondences sent to the UI email address (uiowa.edu) and must use this address for all communication within UI ([Operations Manual, III.15.2](#)).

Complaints

Students with a complaint about an academic issue should first visit with the instructor or course supervisor and then with the Chair of the department or program offering the course; students may next bring the issue to the College of Liberal Arts and Sciences; see this page for more information: <https://clas.uiowa.edu/students/handbook/student-rights-responsibilities>.

Final Examination Policies

The final exam schedule is announced around the fifth week of classes; students are responsible for knowing the date, time, and location of a final exam. Students should not make travel plans until knowing this information. No exams of any kind are allowed the week before finals with very few exceptions made (for labs, ESL and some world language courses, and off-cycle courses): <https://registrar.uiowa.edu/final-examination-scheduling-policies>.

Nondiscrimination in the Classroom

The University of Iowa is committed to making the classroom a respectful and inclusive space for people of all gender, sexual, racial, religious, and other identities. Toward this goal, students are invited in MyUI to optionally share the names and pronouns they would like their instructors and advisors to use to address them.

The University of Iowa prohibits discrimination and harassment against individuals on the basis of race, class, gender, sexual orientation, national origin, and other identity categories set forth in the University's Human Rights policy. For more information, contact the Office of Equal Opportunity and Diversity (<https://diversity.uiowa.edu/eod>; +1 319 335-0705 or (diversity.uiowa.edu)).

Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community must uphold the UI mission and contribute to a safe environment that enhances learning. Incidents of sexual harassment must be reported immediately. For assistance, please see <https://osmrc.uiowa.edu/>.

GE Natural Science Learning Objectives

Students will come to understand a significant segment of natural science and will become familiar with its major concepts and ways of framing questions. Students will understand and appreciate (if not adopt) the attitudes of science: logic, precision, experimentation, tentativeness, and objectivity. Students will develop and practice those communication skills that apply to the relevant discipline. In laboratory courses, students will use laboratory investigations and appropriate procedures to generate accurate and meaningful data and derive reasonable conclusions from them.

COVID-19 Related

See the website:

<https://clas.uiowa.edu/faculty/absences-covid-19-related#overlay-context=faculty/undergraduate-teaching-policies-resources/pandemic-policies>

Exams and Quizzes will be through Icon

The Respondus tools for which UI has licenses have three components: the LockDown Browser, Monitor, and Respondus Monitor: This is the software which uses a webcam to monitor the students while taking the test. It is therefore important to make sure that your webcam works or purchase a webcam, if you don't have one. Lockdown browser is only available for Windows and Mac. Chromebook version is unavailable. To download the Lockdown Browser, click one of the links below:

[For Windows](#)

[For Mac](#)

Lectures and Office Hours will be through Zoom

Zoom link for lectures and office hours (Onel):

https://uiowa.instructure.com/courses/162267/external_tools/14674

TA office hour information is announced through the course website under the 'TAs' section:

https://homepage.physics.uiowa.edu/~yonel/029-011_Spring2021/