

Recent Announcements

PHY 131 (Doelger, 2025 Spring C)

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PHY 131 - University Physics II: Electricity and Magnetism

Course and Faculty Information

Course Description:

PHY 131 is the second part of a three-semester sequence in introductory physics offered to engineering and other science and pre-professional majors who have the appropriate background in mathematics. PHY 131 covers the subject of electricity and magnetism from the electrostatics of Coulomb's law through electrodynamics, as contained in Ampere's and Faraday's laws. Some DC and AC circuit analysis is done, but only to illustrate the physical properties of simple circuit elements and the concept of resonance in physical systems. The course concludes with a discussion of Maxwell's equations and a brief introduction to electromagnetic waves. A detailed list of topics can be found under Course Schedule in this Syllabus.

Prerequisites:

MAT 271 or MAT 266 with C or better if completed OR Visiting University Student. Working familiarity with basic differential and integral calculus is assumed.

Course Objectives:

The overall objective of the course is for students to be able to:

- Apply a small set of fundamental physical principles, that pertain to electricity and magnetism, to a wide variety of physical situations.
- Model complicated physical systems by making approximations and idealizations in order to be able to apply fundamental principles.

General Studies Gold Standard:

*The courses PHY 121, PHY 122, PHY 131, and PHY 132 together fulfill the ASU **Scientific Thinking in Natural Sciences** General Studies requirement. Students completing a Scientific Thinking in Natural Sciences course will be able to:*

1. Obtain and interpret qualitative or quantitative data and communicate the findings.
2. Employ evidence to construct and test scientific hypotheses.
3. Assess the validity of scientific claims using evidence from biological or physical science.
4. Create models to explain observable phenomena and understand biological or physical processes in the natural world.
5. Communicate coherent arguments using evidence drawn from qualitative or quantitative sources.

Lectures:

Tuesday and Thursday, 1:30 - 2:45 pm in PSF 173. Classes begin on Thursday, August 22 and conclude on Thursday, December 5.

Credits: 3

Instructor:

Julia Doelger | julia.doelger@asu.edu (mailto:julia.doelger@asu.edu) -- All emails should contain "PHY 131" in the subject line

Office Location: PSH 559

If you would like to come to my office hour but don't have time to come to my regular scheduled time (below), please contact me via email with your availabilities.

Teaching Assistant:

Kelsey McDougall | kamcdou2@asu.edu (mailto:kamcdou2@asu.edu)

Learning Assistants:

Name| email

Office Hours:**Monday:****Tuesday:****Wednesday:****Thursday:**

12:15pm - 1:15pm: Julia (Instructor) in PSF 186

Friday:

Please ask any homework/content related questions in recitations, office hours or on the corresponding discussion board on canvas. Email the Course Instructor directly **only for personal inquiries and individual administrative items**, like questions about your own grades.

Textbook

The textbook is University Physics with Modern Physics, by Young and Freedman, 15th Edition, (Pearson, 2019) [ISBN: 9780135206348]. See the Syllabus section "Access to Pearson Mastering Physics" for instructions on how to get access to the e-book and homework platform.

Access to Pearson Mastering Physics (HW and Textbook)

To register for the Mastering Physics platform for submitting homework as well as accessing the e-text, follow these instructions:

1. Click on the "Brytewave Course Materials" tab in this Canvas shell.
2. Click on the Mastering title that appears on the shelf. Clicking here will create an access code.
3. Copy the access code.
4. Click on the "Access Pearson" tab in this Canvas shell. If you already have a Pearson student account, log in. If you don't have a Pearson student account, create one.
5. Click on the Mastering title and follow the prompts to enter, or paste, your access code.

Please note: the e-book will not appear on your shelf until approximately 5 days prior to the start of classes.

If you have issues with your Brytewave access code, please email: asuinclusiveaccess@gmail.com (<mailto:asuinclusiveaccess@gmail.com>).

If you need assistance with your Pearson student account, [contact Pearson Student Tech Support](https://support.pearson.com/getsupport/s/contactsupport) [↗](https://support.pearson.com/getsupport/s/contactsupport) (<https://support.pearson.com/getsupport/s/contactsupport>).

Through Brytewave, the textbook (in e-book form) is made available at a discounted price significantly cheaper than if purchased directly from the publisher. If you wish to take advantage of this discounted group price, no additional action is needed. Following the drop/add period, the charge will post to your student account under the header "Digital Integrated Course Mtrl" and your access will continue uninterrupted.

If you'd rather purchase the material from an alternate source, you may choose to opt out of the program by using the link <https://includedcp.follett.com/1230> [↗](https://includedcp.follett.com/1230) (<https://includedcp.follett.com/1230>). Enter your ASU email address AS IT APPEARS IN THE ASU DIRECTORY (<http://asu.edu/directory> [↗](http://asu.edu/directory) (<http://asu.edu/directory>)), then follow the instructions provided. Be aware that if you do opt-out, your access to the e-book (and to the homework!) will be discontinued.

After registration, you can access the Mastering Physics platform anytime by clicking the "Access Pearson" tab in this Canvas shell.

If you need assistance accessing the book or the opt-out portal, you can fill out this [support request form](https://urldefense.com/v3/https://forms.gle/uD4GhBxMoixnbwYx5_!!IKRxdwAv5BmarQ!fRDnynCGagiolFDed2D9YWuQg9BVKn3pliissljoJEQvYEWUOi4Q14UKI) [↗](https://urldefense.com/v3/https://forms.gle/uD4GhBxMoixnbwYx5_!!IKRxdwAv5BmarQ!fRDnynCGagiolFDed2D9YWuQg9BVKn3pliissljoJEQvYEWUOi4Q14UKI) (https://urldefense.com/v3/https://forms.gle/uD4GhBxMoixnbwYx5_!!IKRxdwAv5BmarQ!fRDnynCGagiolFDed2D9YWuQg9BVKn3pliissljoJEQvYEWUOi4Q14UKI).

Course Schedule

Activities used for instruction, assessment, and feedback include: reading the textbook and supplemental materials, lectures with iClicker questions, recitations and recitation assessments, homework assignments (including hw and concept questions), two midterm and a final exam, as well as regular "Daily Surveys" for extra credit. Use of the discussion boards is encouraged, but will not be graded. See the schedule for lectures and exams below.

The table below contains the schedule for this PHY 131 course.

Date	Day	Topic	Reading/Book Chapters
Jan 14	Tu	0. Class Policies, Course Introduction	Syllabus

Jan 16	Th	1. Electric Charge; Coulomb's Law; Electric Field	Ch. 21: 1-4
Jan 21	Tu	2. Electric Forces; Electric Field Calculations	Ch. 21: 4-5
Jan 23	Th	3. Electric Field Lines; Electric Dipoles	Ch. 21: 6-7
Jan 28	Tu	4. Electric Flux; Gauss' Law; Charges on Conductors	Ch. 22: 1-5
Jan 30	Th	5. Electric Potential Energy; Electric Potential	Ch. 23: 1-2
Feb 4	Tu	6. Calculating Electric Potential; Equipotential Surfaces	Ch. 23: 2-5
Feb 6	Th	7. Capacitance; Electric Field Energy; Dielectrics	Ch. 24: 1-4
Feb 11	Tu	8. Current; Resistivity; Resistance	Ch. 25: 1-3
Feb 13	Th	9. Electromotive Force; Circuits; Power	Ch. 25: 3-5
Feb 18	Tu	10. DC Circuits; Kirchhoff's Rules	Ch. 26: 1-2
Feb 20	Th	11. Electrical Measurement Devices; RC Circuits; Magnetism	Ch. 26: 3-4 Ch. 27: 1
Feb 25	Tu	Additional Content/Review	
Feb 27	Th	EXAM 1, Topics 1 - 11	
Mar 4	Tu	12. Magnetic Fields; Magnetic Field Lines, Magnetic Flux	Ch. 27: 2-3
Mar 6	Th	13. Motion of Charge in a B-Field, Magnetic Forces	Ch. 27: 4-9
Mar 11	Tu	Spring Break, no class	
Mar 13	Th	Spring Break, no class	
Mar 18	Tu	14. Sources of Magnetic Fields; Biot-Savart Law	Ch. 28: 1-5
Mar 20	Th	15. Ampere's Law; Magnetic Materials	Ch. 28: 6-8
Mar 25	Tu	16. Faraday's Law; Lenz's Law	Ch. 29: 1-3
Mar 27	Th	17. Motional EMF; Eddy Currents; Maxwell's Equations	Ch. 29: 4-8
Apr 1	Tu	18. Inductance, Magnetic Field Energy	Ch. 30: 1-3
Apr 3	Th	19. Differential Equations; RL Circuits; LC Circuits; RLC Circuits	Ch. 30: 4-6
Apr 8	Tu	Additional Content/Review	
Apr 10	Th	Exam 2, Topics 11 - 19	
Apr 15	Tu	20. AC Circuits, Phasors, Reactance, RLC Circuits	Ch. 31: 1-3
Apr 17	Th	21. Power and Resonance in AC Circuits, Transformers	Ch. 31: 4-6
Apr 22	Tu	22. Maxwell's Equations; Electromagnetic Waves	Ch. 32: 1-3
Apr 24	Th	23. Energy and Momentum in EM waves, Intensity and Polarization	Ch. 32: 4, Ch 33: 5
Apr 29	Tu	Additional Content/Review	
May 1	Th	Additional Content/ Review	
TBA		FINAL EXAM (comprehensive, covering topics 1-23, with special focus on Topics 20 - 23)	

Quick Links

The [Quick Links \(https://asu.instructure.com/courses/210918/pages/quick-links-2\)](https://asu.instructure.com/courses/210918/pages/quick-links-2) page, also found under the course navigation, collects several useful resources like lecture notes in one place.

Student Success

This three-credit course requires a minimum of 135 hours of work. Physics has a reputation for being a difficult subject. However, the fundamental concepts and their applications to specific situations can be mastered with a reasonable amount of effort and a willingness to keep abreast of the material.

Tips for Success

- First and foremost, be proactive about your success in the course.

- Complete the assigned reading before class. You may not fully understand the material at this point, but this first reading will give you an introduction to new concepts and definitions.
- Attend every class (lecture and recitation), take notes as appropriate, and participate actively.
- Ask questions, whether it is during class, office hours, or in the Discussion Forums.
- Do not procrastinate! Begin your assignments and studying early! Work at a steady pace throughout the term, not just in intense bursts before exams. There is simply too much material to be absorbed and understood in a short time.
- Practice! Seek out new problems (e.g. in the back of each book chapter) and work through them carefully. When you are done, check your answer. If you are wrong, examine carefully what misunderstanding occurred and how to avoid it in the future. If you were correct, think over what concepts were used and what 'type' of problem the exercise was. Every time you approach a new concept, carefully think how it could be applied to a variety of fundamental questions.
- **Form a study group** (https://asu.instructure.com/courses/210918/discussion_topics/6130179)! Working together will help you and others better understand the course material as you can work through different challenges and offer each other clarifications on concepts.
- If you have trouble with any aspect of the course, talk to your instructor/TA/LAs sooner rather than later!
- Practice!
- Practice!
- And practice some more!

If you need additional help processing, understanding, and applying the course material, first make sure that you tackle those issues early on and well in advance of exams. Please use the instructional team as resource to help you succeed in this course. We are here for you and are trying our best to make this course an enjoyable and successful learning experience for you. Make use of the recitations, course discussion forums, and office hours.

For more help, you can go to the **Student Success Center** <https://physics.asu.edu/resources/student-success-center> at the Physics Department or use the tutoring services of the **Academic Support Network** <https://tutoring.asu.edu/student-services>.

Canvas Course Access

Canvas platforms for your ASU courses can be accessed by both my.asu.edu <http://my.asu.edu> and asu.instructure.com; bookmark both in the event that one site is down.

Lectures and iClicker

The lecture, reading, and exam schedule can be found in the Course Schedule in the syllabus. Students are responsible for any information conveyed to the class during lectures. You are expected to be prepared for the lecture by reading the material to be covered that day. Attendance will be taken with clicker questions, which requires an iClicker account (see below) and a device (ideally mobile phone) to use for iClicker questions during the lecture.

Active participation during lectures and recitations, in the form of questions to the teaching staff (instructor, TAs, and LAs) or class-related discussion with peers, is highly encouraged.

Class participation using iClicker:

Please use the **instructions here** (<https://asu.instructure.com/courses/210918/pages/iclicker-setup-and-use-instructions>) to register for and setup iClicker.

You will use your iClicker software to answer Multiple Choice questions during the class meetings. For the first two class meetings, clicker questions will be considered practice questions, as you learn to use the software. You are always encouraged to discuss clicker questions with others around you, but when answering, always think for yourself. A correct answer will be counted as 3 points, an incorrect answer will be counted as 2 points, and no answer will be counted as zero points; so the penalty for an incorrect answer is very small. The maximum iClicker grade will be achieved with ~80% of all possible points. Your maximum clicker grade is 100%, i.e. more than all possible points will not be counted as extra credit. Since only 80% of all possible clicker points are required for a perfect score, no opportunity is provided to make up missed clicker questions. **Using someone else's iClicker account, or allowing someone to use your iClicker account, will result in an automatic failing grade for the course.** It is your responsibility to make sure that your iClicker software is in working order, and that your response is recorded. There will be no make-up clicker questions for any reason.

If you find that your clicker score has been impacted significantly by sessions that you missed due to reasons beyond your control, please keep the documentation for your issues and contact me **after the last lecture of the course** so that we can find a solution together.

Recitations and Recitation Assessments

Recitation sessions occur weekly as scheduled, beginning on January 21. The purpose of recitations is to give the student an opportunity to apply essential concepts and learn problem-solving strategies in a smaller class environment. You must attend only the recitation section for which you are registered. The recitations are conducted by the graduate Teaching Assistant (TA) with the help of Learning Assistants (LAs) who will outline homework strategies and help with problem-solving techniques.

During the recitation, the TA will also assign a recitation problem set for practice and evaluation. There will be roughly **one graded exercise every week**. The lowest 2 recitation scores will be dropped. Everything related to recitations (grading, class schedule, absences etc.) should be discussed with the TA.

Homework Assignments

Students are responsible for keeping track of homework (HW) due dates.

All HW assignments (including Homework and Concept Questions), unless otherwise announced, **MUST** be submitted in Mastering Physics. Do not submit an assignment via email. You are required to have a Mastering Physics account for this course. The details for creating an account are found in the syllabus section 'Access to Pearson Mastering Physics'.

The following policies govern homework submitted via Mastering Physics: you have ten opportunities to answer non-multiple choice parts of each assigned item. Within these 10 attempts there is no penalty for non-multiple choice items. For multiple choice questions the grade deduction for each wrong answer is equal to $100\% / (\text{number of choices} - 1)$. Always use three significant figures in your numerical answers (unless the program gives other instructions for a particular problem). Numerical answers must be correct to within 2%.

After the due date there is no late penalty as long as you submit before the assignment availability closes. However, I advise you strongly to submit your homework assignments by their individual due dates to keep up with the course schedule. Some of the assigned problems have hints available. There is no bonus or penalty for using or not using the hints and they do not become part of the assigned items. Additional details can be found by clicking the grading policy link within an assignment.

Note: The last homework availability day is May 8. After that no viewing or submission is possible without exception.

Exams

There will be a total of three exams. The topics covered in the three exams are listed in the Course Schedule in this Syllabus. The exams will contain numerical problems as well as conceptual questions in multiple-choice and/or free-response format. The exam questions can include problems similar to those in the homework, class, or practice problems, but they may also include applications of the same fundamental principles in entirely different circumstances.

Examinations are governed by the following policies:

- Academic dishonesty on an examination will result automatically in a failing grade (E) for the course and referral to the Dean for further sanctions. **Cheating in any form will not be tolerated!**
- No headphones, smartphones, tablets, laptops, and other electronic devices (except hand calculators) are allowed during exams. No leaving the desk during exams (those with medically related need to use restrooms should notify me at least one day before the exam day).
- The use of hand calculators (TI-84/89) is permitted. However, your calculator may not contain stored physics equations.
- Blank test paper (including scratch paper) can be used.
- A short equation sheet and a list of necessary constants will be provided with the Exam (see Quick Links).

Daily Surveys

This course includes regular surveys, called 'Daily Surveys', for the participation in which you can earn extra credit. There is one short survey on each class day. We will use the results of the surveys to support you in this course and to improve this course for future students.

Daily Surveys are anonymized via a Google Form, outside of Canvas, which is linked to each Daily Survey quiz on Canvas.

How to fill a Daily Survey:

For each survey, make sure that you submit the google form AND the associated canvas quiz before its deadline!

1. Open the Canvas quiz
2. Fill and submit the google form linked in the canvas quiz instructions.
3. **Back on Canvas, scroll down, answer the True/False question and press Submit Quiz!**

Note that you can only get extra credit for the Daily Survey if you have submitted both the google form and associated canvas quiz. For extra-credit items no make-up credit is offered for any reason.

Absences

Notify the instructor asap and, if at all possible, AT LEAST ONE WEEK BEFORE an assignment if an urgent situation arises and the assignment cannot be submitted on time. Make-up exams will generally be held before the scheduled exam date. Published assignment due dates are firm. Waiting until the last minute to start an assignment is not recommended.

Please follow the appropriate University policies to request an [accommodation for religious practices](http://www.asu.edu/aad/manuals/acd/acd304-04.html) or to accommodate a missed assignment [due to University-sanctioned activities](http://www.asu.edu/aad/manuals/acd/acd304-02.html).

In order to get a make-up exam appointment, proper documentation, e.g. a doctor's note, needs to be submitted.

Grading

The final grade will be determined from homework assignments (30% in total; including HW: 25%, drop 1 and concept questions: 5%, drop 1), iClicker polls (5%), recitation assessments (5%, drop 2), and exams (60% in total, half-weight for lowest scoring exam -> 12% + 24% + 24%), plus extra credit from 'Daily

Surveys' (2%, drop 1).

You can expect the following letter grade conversion scheme. Any potential changes to this scheme will not increase lower limits:

Letter Grade	Range
A+	100% to 96%
A	< 96% to 90%
A-	< 90% to 85%
B+	< 85% to 81%
B	< 81% to 75%
B-	< 75% to 70%
C+	< 70% to 65%
C	< 65% to 60%
D	< 60% to 40%
E	< 40% to 0%

Final course grades are reported through Canvas before their submission. Each grade release is typically accompanied by an announcement through Canvas. The expectation is that these announcements are read and that questions about their content are asked so that you are informed of your current progress. Because of the tools available in Excel for analyzing large amounts of data, some grade determinations happen in an Excel gradebook and are uploaded to Canvas for reporting. This means that you cannot rely on the grade prediction tools in Canvas or look at any Canvas generated percentage or letter grade before the final grade upload. You may direct general grading questions to the [Community Forum Discussion Board](https://asu.instructure.com/courses/210918/discussion_topics/6130180) (https://asu.instructure.com/courses/210918/discussion_topics/6130180) or send an email to the Course Instructor if your question is about your specific grades/totals.

Communicating With the Instructional Team

Discussion Forums

This course uses a discussion topic called [Community Forum](https://asu.instructure.com/courses/210918/discussion_topics/6130180) (https://asu.instructure.com/courses/210918/discussion_topics/6130180) for general questions and comments about the course. Besides that general forum, there are specific forums for homework, recitations, and exams, as well as additional discussion topics that might come up. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates.

In the discussion forums, you are encouraged to answer each other's questions. The instructional team will monitor the discussions and answer questions on a daily (but not hourly) basis.


In order to monitor Canvas Discussion Forums, e.g. to see when answers are posted, you can turn on notifications for discussions by going on your "Account" on canvas and click on "Notifications".

Note that you may organize other discussion forums for yourself, e.g. on discord. Such forums should be publicly posted in the Community Forum. They may be checked by us occasionally but self-organized forums will generally not be monitored by the instructional team, so please ask questions to us in the discussion forums on Canvas, and let me know if you become aware of any concerning behavior such as harassment or cheating in a student-organized forum.

Office Hours

Office hours are for questions and study advice related to the course. Please make use of the offered office hours by your course instructor, TA, and LAs for any help you need to understand and apply the learned material. For office hour times and locations see the top of the [Syllabus](https://asu.instructure.com/courses/210918/assignments/syllabus) (<https://asu.instructure.com/courses/210918/assignments/syllabus>) page and announcements.

Email

ASU email is an [official means of communication](http://www.asu.edu/aad/manuals/ssm/ssm107-03.html)  (<http://www.asu.edu/aad/manuals/ssm/ssm107-03.html>), among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

Please ask any homework/content related questions in lecture, recitation, office hours or on the corresponding discussion board on canvas. Email the Course Instructor directly **only for personal inquiries and individual administrative items**, like questions about your own grades.

Your Well-Being

You are welcome here. I care about your well-being and encourage you to try to eat well, get exercise, and enough rest. If you are struggling, know that there are many resources available on campus to help and support you, and I strongly advocate that you utilize them! For example, ASU Counseling Services (<https://eoss.asu.edu/counseling> ⇨ <https://eoss.asu.edu/counseling>) is available if you wish to discuss any concerns confidentially and privately.

If at any time you feel suicidal or in danger of harming yourself or others, please reach out for support! Consider the National Suicide Prevention Lifeline: Call or text the number 988.

For financial aid, please visit <https://tuition.asu.edu/financial-aid> ⇨ <https://tuition.asu.edu/financial-aid>). There you can find several short- and longer-term aid options as well as the contact info for the financial aid and student accounts office (<https://tuition.asu.edu/contact> ⇨ <https://tuition.asu.edu/contact>).

Respect Policy

I respect your time:

- I will come prepared to help you understand the course material and prepare you for homework and exams.
- I am here to help you, this is your time, so let me know what I can do to help you succeed.
- If there is something that you would like me to do differently, please let me know. I am happy to work with you to make this course the best it can be.

Respect my time:

- Stay informed about course policies by reading the syllabus, announcements and messages. Pay attention when I am talking to you.
- Come to class prepared and be on time. Attend office hours when you need help.

Respect each other:

- Do not be disruptive.
- Work with each other to find solutions. You learn more by talking to and helping each other.
- Allow one another to make mistakes. This is an important part of the learning process.
- Use respectful language when talking with one another.

Academic Integrity and Generative AI

Academic honesty and integrity is expected of all students in all examinations, quizzes, papers, laboratory work, academic transactions, and records. Any student that is involved in academic dishonesty in this course will receive a failing grade (indicated on the transcript as a grade of XE). For more information, see <https://provost.asu.edu/academicintegrity> ⇨ <https://provost.asu.edu/academicintegrity>).

No Generative AI Use Permitted

In this course, all graded assignments must be completed by the student. Artificial Intelligence (AI), including ChatGPT and other related tools used for creating of text, images, computer code, audio, or other media, are not permitted for use in any graded assignment in this class. Use of these generative AI tools will be considered a violation of the [ASU Academic Integrity Policy](https://provost.asu.edu/academic-integrity/policy) ⇨ <https://provost.asu.edu/academic-integrity/policy>), and students may be sanctioned for confirmed, non-allowable use in this course.

Classroom Discipline

All students are expected to understand & comply with all current published policies, rules & regulations in the current University Catalog, Class Schedule, and Student Handbook. Disciplinary actions including expulsion from class may be imposed for misconduct and violations of law and/or university rules & policies, including plagiarism, profanity, or disruptive conduct. Additionally, required behavior standards are listed in the [Student Code of Conduct and Student Disciplinary Procedures](http://www.asu.edu/aad/manuals/ssm/ssm104-01.html) (<http://www.asu.edu/aad/manuals/ssm/ssm104-01.html>), [Computer, Internet, and Electronic Communications policy](http://www.asu.edu/aad/manuals/acd/acd125.html) (<http://www.asu.edu/aad/manuals/acd/acd125.html>), and outlined by the [Office of Student Rights & Responsibilities](https://students.asu.edu/srr) (<https://students.asu.edu/srr>). Anyone in violation of these policies is subject to sanctions.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process.


Your electronic devices have to be in "Silent Mode" during regular class and "Off" during exams. Activities such as, but not limited to, talking/texting on the phone, web browsing, watching videos, etc. are considered as disruptive conduct and are not allowed during class time.

Individual Student Accommodations


If you need additional accommodations to succeed in this course, please do not hesitate to contact [Student Accessibility and Inclusive Learning Services](https://eoss.asu.edu/accessibility) ⇨ <https://eoss.asu.edu/accessibility>) (SAILS), ideally before the semester starts but you can contact them anytime. If you have registered with SAILS, additionally contact your instructor to ensure that your accommodations are implemented in a helpful way.


Course Withdrawal

In general the course can only be dropped or withdrawn from within the respective deadlines established by the University (see [ASU's academic calendar](https://students.asu.edu/academic-calendar) ⇨ <https://students.asu.edu/academic-calendar>).


However, in the case of an emergency, please contact your instructor and the physics department/your academic advisor to work out a solution, which might for example be a [medical/compassionate withdrawal](https://thecollege.asu.edu/advising/medical-compassionate-withdrawal)  (<https://thecollege.asu.edu/advising/medical-compassionate-withdrawal>).

Incomplete Grade

An Incomplete grade may be given in cases, where a student is unable to attend the remainder of the class due to illness, family emergency, financial hardship, etc., but has only few missing assignments (see [here](https://physics.asu.edu/resources/academic-curriculum#tab-id-220-4)  (<https://physics.asu.edu/resources/academic-curriculum#tab-id-220-4>) for more details). For requesting an Incomplete grade, the student needs to do the following

1. Agree with the instructor if and when missing assignments can be made up (the make-up deadline needs to be within one year).
2. Fill and submit an [Incomplete form](https://secure.na4.documents.adobe.com/public/esignWidget?wid=CBFCIBAA3AAABLbiqZhDTFqTzheHathw7qUfNIUGSmVZ7qLKEDkEUy8h4q8wHZ1vjvJRCh4MZxzCAAdOhgyc*)  (https://secure.na4.documents.adobe.com/public/esignWidget?wid=CBFCIBAA3AAABLbiqZhDTFqTzheHathw7qUfNIUGSmVZ7qLKEDkEUy8h4q8wHZ1vjvJRCh4MZxzCAAdOhgyc*).

Title IX

[Title IX](https://www.asu.edu/about/title-ix)  (<https://www.asu.edu/about/title-ix>) is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs> (<https://sexualviolenceprevention.asu.edu/faqs>). As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling> (<https://eoss.asu.edu/counseling>) is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services, <https://goto.asuonline.asu.edu/success/online-resources.html> (<https://goto.asuonline.asu.edu/success/online-resources.html>).








Copyright

You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless you first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

Syllabus Policy and Disclaimer




















Students are responsible for knowing and abiding by the information in this syllabus. Students are likewise responsible for knowing and abiding by the policies included in the college catalog and the student handbook. All class syllabi are tentative and subject to change as necessary to accommodate the needs of the class. Announcements will be made in the case of any changes. Make sure to attend class and check your ASU email and the course site often to not miss any announcements.








Course Summary:

Date	Details	Due
Tue Jan 14, 2025	 Daily Survey Class 0 (https://asu.instructure.com/courses/210918/assignments/5864133)	due by 11:59pm
Thu Jan 16, 2025	 Daily Survey Class 1 (https://asu.instructure.com/courses/210918/assignments/5864033)	due by 11:59pm
Tue Jan 21, 2025	 Daily Survey Class 2 (https://asu.instructure.com/courses/210918/assignments/5864094)	due by 11:59pm
Thu Jan 23, 2025	 Daily Survey Class 3 (https://asu.instructure.com/courses/210918/assignments/5864071)	due by 11:59pm
Fri Jan 24, 2025	 Ch 21 HW (https://asu.instructure.com/courses/210918/assignments/5981343)	due by 11:59pm
	 Chapter 21 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981336)	due by 11:59pm
Tue Jan 28, 2025	 Daily Survey Class 4 (https://asu.instructure.com/courses/210918/assignments/5864066)	due by 11:59pm

Date	Details	Due
	 Recitation Worksheet #2 (https://asu.instructure.com/courses/210918/assignments/5864206)	due by 11:59pm
Thu Jan 30, 2025	 Daily Survey Class 5 (https://asu.instructure.com/courses/210918/assignments/5864136)	due by 11:59pm
	 Ch 22 HW (https://asu.instructure.com/courses/210918/assignments/5981325)	due by 11:59pm
Fri Jan 31, 2025	 Chapter 22 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981328)	due by 11:59pm
Mon Feb 3, 2025	 Recitation Worksheet #1 (https://asu.instructure.com/courses/210918/assignments/5864202)	due by 11:59pm
	 Daily Survey Class 6 (https://asu.instructure.com/courses/210918/assignments/5864062)	due by 11:59pm
Tue Feb 4, 2025	 Recitation Worksheet #3 (https://asu.instructure.com/courses/210918/assignments/5864207)	due by 11:59pm
Thu Feb 6, 2025	 Daily Survey Class 7 (https://asu.instructure.com/courses/210918/assignments/5864056)	due by 11:59pm
	 Ch 23 HW (https://asu.instructure.com/courses/210918/assignments/5981342)	due by 11:59pm
	 Ch 24 HW (https://asu.instructure.com/courses/210918/assignments/5981329)	due by 11:59pm
Fri Feb 7, 2025	 Chapter 23 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981324)	due by 11:59pm
	 Chapter 24 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981333)	due by 11:59pm
	 Daily Survey Class 8 (https://asu.instructure.com/courses/210918/assignments/5864076)	due by 11:59pm
Tue Feb 11, 2025	 Recitation Worksheet #4 (https://asu.instructure.com/courses/210918/assignments/5864208)	due by 11:59pm
Thu Feb 13, 2025	 Daily Survey Class 9 (https://asu.instructure.com/courses/210918/assignments/5864122)	due by 11:59pm
	 Ch 25 HW (https://asu.instructure.com/courses/210918/assignments/5981320)	due by 11:59pm
Fri Feb 14, 2025	 Chapter 25 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981341)	due by 11:59pm
	 Daily Survey Class 10 (https://asu.instructure.com/courses/210918/assignments/5864139)	due by 11:59pm
Tue Feb 18, 2025	 Recitation Worksheet #5 (https://asu.instructure.com/courses/210918/assignments/5864209)	due by 11:59pm
Thu Feb 20, 2025	 Daily Survey Class 11 (https://asu.instructure.com/courses/210918/assignments/5864084)	due by 11:59pm
Fri Feb 21, 2025	 Ch 26 HW (https://asu.instructure.com/courses/210918/assignments/5981314)	due by 11:59pm

Date	Details	Due
Tue Mar 4, 2025	 Chapter 26 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981332)	due by 11:59pm
	 Daily Survey Class 12 (https://asu.instructure.com/courses/210918/assignments/5864075)	due by 11:59pm
	 Recitation Worksheet #6 (https://asu.instructure.com/courses/210918/assignments/5864210)	due by 11:59pm
Thu Mar 6, 2025	 Daily Survey Class 13 (https://asu.instructure.com/courses/210918/assignments/5864050)	due by 11:59pm
Fri Mar 7, 2025	 Ch27 HW (https://asu.instructure.com/courses/210918/assignments/5981334)	due by 11:59pm
	 Chapter 27 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981338)	due by 11:59pm
	 Daily Survey Class 14 (https://asu.instructure.com/courses/210918/assignments/5864064)	due by 11:59pm
Tue Mar 18, 2025	 Recitation Worksheet #7 (https://asu.instructure.com/courses/210918/assignments/5864211)	due by 11:59pm
	 Daily Survey Class 15 (https://asu.instructure.com/courses/210918/assignments/5864068)	due by 11:59pm
Thu Mar 20, 2025	 Ch28 HW (https://asu.instructure.com/courses/210918/assignments/5981335)	due by 11:59pm
Fri Mar 21, 2025	 Chapter 28 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981340)	due by 11:59pm
	 Daily Survey Class 16 (https://asu.instructure.com/courses/210918/assignments/5864026)	due by 11:59pm
	 Recitation Worksheet #8 (https://asu.instructure.com/courses/210918/assignments/5864212)	due by 11:59pm
Thu Mar 27, 2025	 Daily Survey Class 17 (https://asu.instructure.com/courses/210918/assignments/5864143)	due by 11:59pm
Fri Mar 28, 2025	 Ch29 HW (https://asu.instructure.com/courses/210918/assignments/5981331)	due by 11:59pm
	 Chapter 29 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981337)	due by 11:59pm
	 Daily Survey Class 18 (https://asu.instructure.com/courses/210918/assignments/5864029)	due by 11:59pm
Tue Apr 1, 2025	 Recitation Worksheet #9 (https://asu.instructure.com/courses/210918/assignments/5864213)	due by 11:59pm
Thu Apr 3, 2025	 Daily Survey Class 19 (https://asu.instructure.com/courses/210918/assignments/5871595)	due by 11:59pm
Fri Apr 4, 2025	 Ch30 HW (https://asu.instructure.com/courses/210918/assignments/5981316)	due by 11:59pm
	 Chapter 30 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981339)	due by 11:59pm

Date	Details	Due
Thu Apr 10, 2025	 Daily Survey Class 19 (https://asu.instructure.com/courses/210918/assignments/5864044)	due by 11:59pm
	 Daily Survey Class 20 (https://asu.instructure.com/courses/210918/assignments/5864038)	due by 11:59pm
Tue Apr 15, 2025	 Daily Survey Class 20 (https://asu.instructure.com/courses/210918/assignments/5864104)	due by 11:59pm
	 Recitation Worksheet #10 (https://asu.instructure.com/courses/210918/assignments/5864203)	due by 11:59pm
Thu Apr 17, 2025	 Daily Survey Class 21 (https://asu.instructure.com/courses/210918/assignments/5864113)	due by 11:59pm
Fri Apr 18, 2025	 Ch31 HW (https://asu.instructure.com/courses/210918/assignments/5981326)	due by 11:59pm
	 Chapter 31 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981323)	due by 11:59pm
Tue Apr 22, 2025	 Recitation Worksheet #11 (https://asu.instructure.com/courses/210918/assignments/5864204)	due by 11:59am
	 Daily Survey Class 22 (https://asu.instructure.com/courses/210918/assignments/5864146)	due by 11:59pm
Thu Apr 24, 2025	 Daily Survey Class 23 (https://asu.instructure.com/courses/210918/assignments/5871596)	due by 11:59pm
Thu May 1, 2025	 Course Evaluation Survey (https://asu.instructure.com/courses/210918/assignments/5864151)	due by 11:59pm
Fri May 2, 2025	 Ch32/Ch33 HW (https://asu.instructure.com/courses/210918/assignments/5981330)	due by 11:59pm
	 Chapter 32 Concept Questions (https://asu.instructure.com/courses/210918/assignments/5981315)	due by 11:59pm
	 Honors Contract (https://asu.instructure.com/courses/210918/assignments/5864199)	due by 11:59pm
Sun May 4, 2025	 Recitation Worksheet #12 (https://asu.instructure.com/courses/210918/assignments/5864205)	due by 11:59pm
	 Exam 1 (https://asu.instructure.com/courses/210918/assignments/5864166)	
	 Exam 1 Alternative (https://asu.instructure.com/courses/210918/assignments/5864138)	
	 Exam 1 Multiple-Choice Questions (https://asu.instructure.com/courses/210918/assignments/5864167)	
	 Exam 1 Open-Response Question (https://asu.instructure.com/courses/210918/assignments/5864168)	
	 Exam 2 (https://asu.instructure.com/courses/210918/assignments/5864169)	
	 Exam 2 Multiple-Choice Questions (https://asu.instructure.com/courses/210918/assignments/5864170)	

Date	Details	Due
	 Exam 2 Open-Response Question (https://asu.instructure.com/courses/210918/assignments/5864171)	
	 Exam Average (after reweighting) (https://asu.instructure.com/courses/210918/assignments/5864172)	
	 Final Exam (https://asu.instructure.com/courses/210918/assignments/5864173)	
	 Final Exam Alternative (https://asu.instructure.com/courses/210918/assignments/5864059)	
	 Final Exam Multiple-Choice Questions (https://asu.instructure.com/courses/210918/assignments/5864174)	
	 PHY 131 Percentage (https://asu.instructure.com/courses/210918/assignments/5864201)	
	 reweighted iClicker Score (https://asu.instructure.com/courses/210918/assignments/5864215)	