



CLEMSON

PHYSICS AND ASTRONOMY

PHYS 1220: Physics with Calculus I

Instructor:	Pooja Puneet, PhD
Department:	Physics and Astronomy
Class Location	100 Daniel Hall
Class Meetings:	Section 003: MWF 10:10 am –11:00 am Section 004: MWF 11:15 am –12:05 pm (online virtual classes: March 23–April 24) 205 Kinard Lab
Office Location:	(virtual meeting room for office hours: https://clemsun.webex.com/meet/ppuneet)
Office Phone:	(864) 656 -1408
Course CRN:	10567 (section 003) and 10570 (section 004)
Course start date:	January 8, 2019
Course end date:	May 1, 2019
Office hours:	MWF: 1:00 pm to 3:30 pm and TR: 10:00 am to noon, or by appointment
Email Id:	ppuneet@clemsun.edu

Course Description

First of three courses in a calculus-based physics sequence. Topics include vectors, laws of motion, conservation principles, rotational motion, oscillations, and gravitation. Credit for a degree will be given for only one of PHYS 1220, 2000, or 2070. Includes Honors sections.

Prerequisites

Prerequisite or concurrent enrollment: MATH 1060 or MATH 1070

Course Objectives

To give the successful student a working knowledge of mechanics and the skills necessary to solve basic mechanics problems with exercises in critical thinking by the use of quantitative and qualitative analysis. Students are expected to have the skills to:

- Analyze motion in terms of position, displacement, velocity, and acceleration.
- Develop the skill to apply one- and two-dimensional kinematic equations.
- Construct free-body diagrams and apply Newton's laws of motion.
- Apply Newton's laws and kinematic equations to rotational motion.
- Analyze systems using conservation laws of energy and momentum.
- Compute the properties of rigid body motion (translation and rotation).
- Apply Newton's laws and conservation laws to fluids and oscillations.

Gen Ed Requirements

This course satisfies the general education competency for mathematics and natural sciences with lab as evident in the lab reports of PHYS1240. Students demonstrate the process of scientific reasoning by performing an experiment and thoroughly discussing the results with reference to the scientific literature, or by studying a question through critical analysis of the evidence in the scientific literature.

Course Materials

- **Textbook (recommended):** *Physics for Scientists and Engineers: Foundation and Connections* by Debora M. Katz, 2015 (Advance edition). Boston, MA 02210: Cengage. ISBN: #978-1-305-30882-4, 978-0-534-46684-8. 978-1-305-25983-6, or 978-1-305-07798-0. **NOTE:** If you wish to purchase the textbook, **please DO NOT buy the bundle package with WebAssign** access because we will NOT USE WebAssign homework this semester. If you would like to purchase an e-book, the kindle version of the textbook is available at amazon.com.
- **For Online Homework assignments (required):** The Expert TA account (accessed through canvas, see “Log in to ExpertTA” below).
- **For in-class assignments/quiz (required):** Online *iClicker Cloud* polling subscription/ access.
- Ancillary information (recorded lectures, lecture notes, etc) is provided in the canvas course site.
- Laptop or desktop computer.
 - Reliable internet service.
 - WebBrowser either [firefox](#), [chrome](#), or safari. [Adobe Reader](#), Flash Player, Java, QuickTime Player.

Student Learning Outcomes

- Students will identify velocity and acceleration from position-versus-time graph and velocity-versus-time graph.
- Students can utilize kinematic equations to determine the position, velocity, and acceleration of a moving object.
- Students can calculate the net force on an object and can apply the three Newton laws to determine the motion of an object.
- Students can apply kinematic equations of circular motion in combination with the Newton's second law for circular motion to determine the motion of an object in circular motion.
- Students can apply correctly the law of conservation of momentum.

- Students can utilize the law of conservation of energy for isolated and nonisolated systems.
- Students can apply Newton's laws and conservation laws to fluids and oscillations.

In-Class Quiz

We are using audience response systems in class called *iClicker Cloud Polling* for our daily in-class quiz. Each class, there will be several questions posed throughout class to which you will respond with your internet device. Your iClicker Cloud account must be activated and registered as soon as possible (see detailed instructions for purchasing and registering below). We will begin using iClicker for a grade starting **January 10th (Friday)**. *Clicker remotes are NOT allowed in this course.*

For each clicker question, 3 raw points as participation credit (irrespective of the correctness of response) and 5 raw points for each correct answer (3 points for participation + 2 points for correctness) will be awarded. In case of absence or failure to register a response in class (no answer), 0 points are recorded for that particular question. The cumulative total of the Clicker questions will be averaged to **10% of the final letter grade**. Each clicker day is worth the same amount of credit regardless of the number of questions asked on that day or raw points for a particular day. **The lowest 3 daily quiz scores (which may include zeroes) will be dropped.**

Purchasing and Accessing iClicker Cloud (Reef) subscription:

- I. Your iClicker Cloud account is initially activated through Canvas: In Canvas, go to "Assignments" and click on *iClicker Cloud Registration link*. **Make sure to click the link for your section only.** Click on "Load iClicker Reef in a new window" and follow the directions to get into iClicker Cloud account. You will be given instructions to access and purchase your iClicker Cloud subscription. If you already have an account, please use that account for this course. Students can purchase an iClicker Cloud subscription from within the iClicker web, iOS, or Android applications. All students (first-time users) receive a free 14-day trial when they sign up for a iClicker Cloud account. A 6-month (1 year) subscription costs \$14.99 (\$23.99). If you have already purchased subscription for another course this semester, you will not need to pay any additional fee for this course.
- II. For Access to iClicker Cloud (Reef) mobile app: Download the iClicker Cloud mobile app via the App Store or Google Play or visit app.reef-education.com and then click Sign Up! Select **Clemson University** as your institution. For your username, please enter your CU's email address (as in@clemson.edu). You also need to enter your student ID; note that a Clemson student ID starts with an uppercase C followed by 8 numeric characters (for example, C12345678). • Select "Clemson University" as your institution. Follow the sign in instructions. You should then click the plus sign in the upper right hand corner to select this course titled as: **PHYS 1220_SECTION 003_Spring 2019_PUNEET** (to join SECTION 003) **OR** **PHYS 1220_SECTION 004_Spring 2019_PUNEET** (to join SECTION 004). **Please be sure to join in the appropriate section for receiving credit for daily quizzes.**

iClicker (in-class quiz) makeup: If you miss more than three class days due to university excused absences or illnesses documented by a physician, you will have an opportunity to make up iClicker points. In order to take advantage of this, you must email your instructor pdf's of your excuses. Your instructor will then give you an assignment for each day (or exemption) over the three that

you miss to make up the points. The student will only be allowed a make-up if he/she shows written documentation within one week of a particular quiz/iClicker session.

Homework

We will be using *ExpertTA* as our interactive homework submission system. Homework must be submitted for each chapter in the textbook. Homework sets are posted in the Canvas course under Assignments tab. Every student will have a free access to *ExpertTA* in the first two weeks of classes. The cost for using *ExpertTA* is \$32.50/semester. Students have the option to purchase the access code in our bookstore or directly using a credit card during the registration process at *ExpertTA* through Canvas. **Note:** We will NOT be using WebAssign, so do not purchase the WebAssign Access Kit that may come with the textbook, if you wish to purchase the textbook.

Homework is intended to take you between 2 and 3 hours per chapter. For each problem, students are given 5 trial submissions to a correct answer. For each incorrect submission attempt, there will be a 2% value deduction and the deduction for accessing a hint is 1%. The worth of homework total points is 20% of the total points in class. Homework is due at 11:59 pm on the day indicated in the schedule. There is a 1%/hour score reduction for a late homework with a maximum of 40% score reduction. All due dates are posted in the *ExpertTA* HW system that is linked with our Canvas course. Each homework is worth the same amount of credit (regardless of the number of raw homework points). The lowest homework score will be dropped at the end of the semester.

Log in to *ExpertTA*

All students will have *two-week grace period* from the start date of the course to use *ExpertTA* for free, students have to pay for the access after the grace period for completing assignments. To access your Expert TA account directly from Canvas, please follow the steps below:

- Log in to Canvas and click Assignments, then click “Learning Expert TA – Tutorial” under

Expert TA Assignments. These steps will log you in your Expert TA account.

- If this is your first time accessing ExpertTA through Canvas, you will be ported into Expert TA immediately, where you will have the option to pay with a credit card, bookstore access code, or choose a 14-day free trial. After the shopping card page, you can start working on your assignments.

Examinations

Midterm Exams: There will be three exams during the course schedule. Each exam lasts one hour and is worth 150 points. Each exam will be taken through the Canvas online system in an assigned proctored room. It will be given on Thursday evening at **7:00 pm** on **February 13th, March 12th, and April 16th**. Each exam is a multiple-choice exam where some problems are given partial credits. There will be practice exams in Canvas for students to practice before the exam and to make sure student computers work with the system. If you miss an exam because of an excused absence you will be given a makeup exam. To obtain an excused absence from a test your reason must be serious and verified by University sources. Makeup exams will be given the following

Thursday evening at 7 pm in G01 Kinard. There are no dropped exams, exam grade replacements, or final exam exemptions.

Final Exam:

The final exam is comprehensive that it covers all materials of the course. It will be given on **Wednesday, April 29th from 7:00 pm to 9:30 pm**. It will be a multiple-choice Canvas online exam like the other exam to be taken in an assigned proctored room. No exemptions from this examination will be given. The final examination will be worth 250 points or 25% of your final grade.

Exam Aids: During all the exams, students are allowed to bring and to use the equation sheet, Phys1220_Eqs.pdf that is available in the “Files” of our Canvas. This equation sheet can have no writing on it. You will also be allowed to bring in several blank scratch papers. You will need to bring your computer to your assigned testing room. Please make sure your computer is fully charged before entering the room as there may not be enough outlets for all. Note that **calculators are not allowed**.

Grading

Assignments in this course are divided into these general categories, which carry the following weight in your final grade calculations:

3 Midterm exam (15% each)	450 points
1 Final exam (25%)	250 points
Assignments (20%)	200 points
Quiz (10%)	100 points
Total points (100%)	1000 points

You are treated as a professional in the course. Accordingly, the grading is strict, but fair. Reading the directions and grading criteria provided for each assignment is the key to understanding how you will be graded. Following those directions is the key to doing well.

This course follows the typical grading guidelines:

A = 90 to 100% ; B = 80 to 89% ; C = 70 to 79% ; D = 60 to 69% ; F = 0 to 59%

Contesting Grades

Grades will be updated typically daily on Canvas. You have one week to contest any grade after it is posted. Homework grades will be posted in WebAssign.net and any contesting of grades should be done within a week of completion of the assignment. Any requests for reexamination of scores more than one week after the grades are posted will not be granted. Quiz scores are typically posted daily so there should be plenty of time to contest a score within the allotted week. Requests for quiz make-ups must also be made within the week of the question and must be backed up by a written document validating the conflict.

Course Content:

Chapter 1: Getting Started with Physics

Chapter 2: One-Dimensional Motion

Chapter 3: Vectors

Chapter 4: Two-and Three-Dimensional Motion

Chapter 5: Newton's Laws of Motion

Chapter 6: Applications of Newton's Laws of Motion

Chapter 7: Gravity

Chapter 8: Conservation of Energy

Chapter 9: Energy in NonIsolated Systems

Chapter 10: Systems of Particles and Conservation of Momentum

Chapter 11: Collisions

Chapter 12: Rotation I: Kinematics and Dynamics

Chapter 13: Rotation II: A Conservation Approach

Chapter 14: Static Equilibrium, Elasticity, and Fracture

Chapter 15: Fluids

Chapter 16: Oscillations

Course expectations and policies

- Attendance Policy and Inclement Weather:** Attendance **is** required for this course. Because of the cumulative nature of principles involved and the pace at which material is covered, it is recommended that student not miss a class unless there is a compelling reason. Students are requested to wait 10 minutes in the unlikely event that your instructor is late for the class. In the event of an emergency, the student should make direct contact with the course instructor, preferably before a class or an exam takes place. Students should speak with their course instructor regarding any scheduled excused absence as soon as possible and develop a plan for any make-up work. Excused absences include documented illness, official university functions, court attendance, religious observances, military duty, and funeral attendance. Written documentation is required for the absence to be excused. **The MyCLE absence notification system is NOT an official absence excuse.** It is the student's responsibility to secure documentation of emergencies, if required. A student with an excessive number of absences may be withdrawn at the discretion of the course instructor. Any exam that was scheduled at the time of a class cancellation due to inclement weather will be given at the next class meeting unless contacted by the instructor. Any assignments due at the time of a class cancellation due to inclement weather will due at the next class meeting unless contacted by the instructor. Any extension of postponement of assignments or exams must be granted by the instructor via email or Canvas within 24 hours of the weather-related cancellation.

2. Faculty Response Time:

Communications Response Time: Instructor response time is 36 hours for questions posted in the Learning Management System and sent via email. This response times excludes weekends, official University closures, and other times as noted by the instructor. Should you need live assistance, email me to arrange an office or phone consultation.

Important Note: Refer to the course calendar for specific meeting dates and times. Activity and assignment details will be explained in detail within each week's corresponding learning module. If you have any questions, please contact your instructor.

3. **Email Communication:** Because of privacy regulations, University faculty and staff may email students only through Clemson email. Therefore, you must use your Clemson email account in this course for all email communications. It is student's responsibility to check the Clemson email or any possible announcements in Canvas DAILY for important messages.
4. **Copyright Notice:** The materials found in this course are strictly for the use of students enrolled in this course and for purposes associated with this course; they may not be retained for further disseminated. Clemson students, faculty, and staff are expected to comply fully with institutional copyright policy as well as all other copyright laws.
5. **Class Conduct and Etiquette:** I expect this class to be highly interactive and a good learning environment for all of you. Students are encouraged to speak up if they disagree with something or ask questions, if they do not understand a concept but please do so respectfully and politely. Students are expected to behave politely and to respect their fellow classmates and instructor at all times. *Students are strictly prohibited to use earphones, play video games, access websites (other than canvas or course-related material), text, check emails and talk to others during the lecture as it is disturbing to the class and the instructor.* Repeated disruptions by any of these activities may result in dismissal from class and loss of clicker points for that day. The students are expected to arrive on time and leave after the class is dismissed.
6. **Accepting Late work:** Late Assignments will only be accepted if you have an unanticipated excused reason that kept you from completing the assignment on time. Computer crashes, lost laptops, and schedule mishaps are not excused absences. Following is the list of university approved excuses for allowing make up:

Valid excuses for make up exams and other late work:

1. Travel for official university events is considered an excused absence if and only if, you have a letter from the event sponsor and you provide that to me at least 1 week in advance.
2. Acute medical complication too severe or contagious to allow attendance to class. Paperwork of medical visits must be provided. Non-acute medical service scheduled during class time does not constitute an excused absence.
3. Death or serious illness in student's immediate family (parent/guardian, sibling, child, partner).
4. Religious observances if information provided at least one week in advance.
5. Court imposed legal proceedings (if noted in advance)
6. Military obligations (documentation from commanding officer and advanced notice required)

Online assignments must be completed on or before the due date for anticipated absences.

University policies

1. **Academic Integrity:** Coursework must be documented appropriately in CSE or APA format, based on your major. Content from previous classes may not be submitted.

The Clemson University Academic Integrity Statement

“As members of the Clemson University community, we have inherited Thomas Green Clemson’s vision of this institution as a “high seminary of learning.” Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.”

A simple definition of plagiarism is when someone presents another person’s words, visuals, or ideas as his or her own. The instructor will deal with plagiarism on a case-by-case basis. The most serious offense within this category occurs when a student copies text from the Internet or from a collective file. This type of academic dishonesty is a serious offense that will result in a failing grade for the course as well as the filing of a formal report to the University.

See the Undergraduate Academic Integrity Policy website for additional information about academic integrity and Clemson procedures and policies regarding scholastic dishonesty.

2. **Student Disability Services:** Student Disability Services coordinates the provision of accommodations for students with disabilities in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Reasonable and specific accommodations are developed with each student based on current documentation from an appropriate licensed professional. All accommodations are individualized, flexible, and confidential based on the nature of the disability and the academic environment. Housing accommodations for a disability or medical condition are also coordinated through this office.

Students with disabilities requesting accommodations should make an appointment with Dr. Margaret Camp (656-6848), Director of Disability Services, to discuss specific needs within the first month of classes. Students should present a Faculty Accommodation Letter from Student Disability Services when they meet with instructors. Accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester. Visit the Student Disability Services website for location, contact information, as well as official policies and procedures. To learn more information or request accommodations contact Student Disability Services (SDS) at sds-l@clemson.edu or 864.656.6848 or visit [SDS’s website: http://www.clemson.edu/campus-life/campus-services/sds/about.html](http://www.clemson.edu/campus-life/campus-services/sds/about.html).

3. **The Clemson University Title IX (Sexual Harassment) Statement:** Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran’s status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. To locate information on the [Title IX policy](#).

visit <http://www.clemson.edu/campus-life/campus-services/access/title-ix/>. Mr. Jerry Knighton is the Clemson University Title IX Coordinator, and is also the Director of Access and Equity. His office is located at 111 Holtzendorrf Hall, [864.656.3181](tel:864.656.3181) (voice) or [864.565.0899](tel:864.565.0899) (TDD).

4. **Academic Grievances:** Academic grievances are handled by [Dr. Jeffrey Appling](#) in Undergraduate Studies or [Dr. Frankie Felder](#) for Graduate Studies. Students are advised to visit the [Ombuds Office](#) prior to filing a grievance.
5. **Academic Continuity Plan:** Clemson has developed an Academic Continuity Plan for academic operations. Should university administration officially determine that the physical classroom facility is not available to conduct classes in, class will be conducted in a virtual (online) format. The University issues official disruption notifications through email /www/text notification/Social Media.

When notified, use one of the following links to navigate to Clemson Canvas course, where you will find important information about how we will conduct class:

Primary access link: www.clemson.edu/canvas.

Secondary access link, if needed: <https://clemson.instructure.com/>.

You can also use the Canvas Student App.

On Wednesday, February 19, 2020, our class will implement an academic continuity exercise in a meeting within WebEx. We will not meet in our classroom, but in an online WebEx meeting. The link to the WebEx meeting will be emailed to you before the class meeting and also it will be available on the Canvas front page. We will have a lecture as usual with iClicker quizzes.

In view of the currently evolving COVID-19 situation, Clemson university has moved all instruction to the online modality starting March 23 for the remainder of the term. Please see the detailed academic plan below for this course:

- i. **Class meetings:** There are two possible approaches that I would be using for delivering lecture materials online for the rest of the term in this course.
 - *Synchronous method:* I will hold class meetings at the regular class meeting times (section 003: 10:10 am to 11 am and section 004: 11:15 am to 12:05 pm) using WebEx meeting (accessed through WebEx navigation menu in your Phys 1220 Canvas course). Please click on the JOIN button and then choose 'run as a temporary application option' to join the live lecture during each session. I will be using iClicker Cloud app for daily quiz questions as we usually do in class. Students will be allowed to mark their attendance and respond to the quiz questions during the lecture using your iclicker app from home and are not required to be present on campus.
 - *Asynchronous method:* In case of any problems related to the internet or WebEx server connectivity or other such issues, I would post pre-recorded lecture videos in canvas course modules for students to watch on the day of the class. Students would be notified via Canvas email or announcements about this as soon as possible, should this method of delivering lecture content be used. In this case, students would respond to the daily quiz questions through canvas quiz (not iclicker app), due at 11:59 pm on the day of the scheduled class, to receive quiz credit for the day.
- ii. **Homework assignments:** Students will continue to submit their online ExpertTA homework assignments as usual according to the present deadlines listed in the course calendar.

- iii. **Exams:** Students will take the online canvas exams on the scheduled dates and time listed in the course calendar on the last page of the syllabus (or during a particular window of time) using questions banks developed by Dr. The'. The details about the exams will be communicated closer to the exam dates.
- iv. **Communication:** Any notifications or emails will be sent through Canvas inbox and Canvas course announcements. Students are highly recommended to check their canvas settings to ensure that they allow these notifications to be sent to their frequently used emails (Clemson email id) and are responsible for keeping track of the course progress accordingly.
- v. **Office hours:** I will hold regular office hours virtually using WebEx meetings. Students are required to email me with a specific time during the scheduled office hours for an online meeting, and I will send out a link for them to join through WebEx.

Note to students: You are encouraged to email me or schedule a virtual meeting during office hours, if you face any difficulty with the course material being covered online or need to discuss any other concerns you may be having. I am committed to help you to the best of my abilities under these unexpected circumstances, while we work together on the method of online instruction. Stay safe and healthy!

6. **Inclement Weather Statement:** Any exam that was scheduled at the time of a class cancellation due to inclement weather will be given at the next class meeting unless contacted by the instructor. Any assignments due at the time of a class cancellation due to inclement weather will be due at the next class meeting unless contacted by the instructor. Any extension or postponement of assignments or exams must be granted by the instructor via email or Canvas within 24 hours of the weather-related cancellation.

University officials monitor local weather conditions before making decisions to cancel classes, close offices or delay openings. For updates on the status of Clemson classes and office closings:

- Check the Clemson University homepage (<http://www.clemson.edu/>) for messages about closings or delays;
- Check the CU Safety page (<http://www.clemson.edu/cusafety/>) for detailed messages and weather advisories;
- Check your Clemson University e-mail for CU Safe Alerts or Inside Clemson messages;
- Check your cell phone if you have signed up to receive CU Safe Alert text messages (See the CU Safety page for sign-up instructions);
- Call the Clemson University switchboard at 656-3311 for recorded updates between 8 p.m. and 8 a.m. Monday-Friday and on weekends (recorded messages provide closure information, not weather forecasts); and
- Tune in to local TV and radio stations or log on to their Web sites.
- When local county government offices are closed, local Clemson University campuses also are closed.

Tutoring Information

This course is supported by the Academic Success Center tutoring program. The ASC tutors have completed and done well in this course, and they understand the concepts well enough to help you work through questions you have. The ASC tutoring program is certified by the College

Reading and Learning Association, which means that our tutors are trained to share learning and study strategies during tutorial sessions. While tutors will not complete/correct homework for you or help you on take-home tests or quizzes, they will help you understand and reinforce concepts that you are learning in your classes. For more information visit <https://www.clemson.edu/asc/courses/tutoring/index.html>.

Additional Course Support

If you discover that you would like additional support to meet your success goals for this course, contact the Academic Success Center using their "Request for Course Assistance" form (<http://www.clemson.edu/asc/courses/index.html>). Private tutoring may be available through the Tutor Matching Service. If you feel confident in your abilities in this course after completion, or in other courses you have already completed, please consider signing up to provide tutoring at a pay rate you set for yourself (<http://www.clemson.edu/asc/courses/private-tutoring.html>).

Technical Support

If you are experiencing technical difficulties with any element of the course, please contact me immediately. I will direct you to the appropriate IT support (for course site issue email ithelp@clemson.edu and for WebAssign site issue go to <http://webassign.com/support-request> or call (800) 955-8275) to fix the issue promptly.

Meeting Deadlines

Assignments are due by *11:59 pm, Eastern Time* on the day specified unless otherwise stated. Plan ahead for the unexpected! You are accountable for staying on schedule should technological or other problems arise. You should immediately contact the instructor if an emergency may affect your ability to meet course deadlines.

Many students juggle school, work, family, and other life responsibilities all at the same time. If a serious life issue prevents you from staying current in your coursework, contact your instructor as soon as possible to explain your circumstances. Do not let school or life responsibilities overwhelm you. The faculty and staff at Clemson are aware that students face challenges, and we are committed to your success. Often, we may be able to help you see a way to deal with your circumstances and still complete your courses. We have a lot of experience. Give us the chance to help you.

Email Communication

Because of privacy regulations, University faculty and staff may email students only through Clemson email. Therefore, you must use your Clemson email account in this course for all email communications. Check your Clemson account at least three times per week for important messages.

Important dates:

January 14: Last day to register or add a class or declare audit.

January 22: Last day to drop/withdraw without a W.

March 27: Last day to drop a class or withdraw from the University without final grades (notice the change of date).

Exam dates

Midterm exam-1: Thursday, February 13th from 7:00 pm to 8:00 pm.

Midterm exam-2: Thursday, March 12th from 7:00 pm to 8:00 pm

Midterm exam-1: Thursday, April 16th from 7:00 pm to 8:00 pm

Final Exam: Wednesday, April 29th from 7:00 pm until 9:30 pm

Course Calendar:

You will find a calendar for course activities below.

Phys 1220 Spring 2020 Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
January 6 No class	7	8 Intro/Ch 1	9	10 Ch 2
13 Ch 2	14 HW Getting St	15 Ch 2	16 HW #1 Due	17 Ch 2
20 MLK Holiday	21	22 Ch 3	23 HW #2 Due	24 Ch 3/4
27 Ch 4	28 HW #3 Due	29 Ch 4	30	31 Ch 4
February 3 Ch 5	4 HW #4 Due	5 Ch 5	6	7 Ch 5
10 Ch 6	11 HW #5 Due	12 Ch 6 & Review-1	13 Ch 1-5 Exam 1	14 Ch 6
17 Ch 6	18	19 Online Class Ch 7	20 HW #6 Due	21 Ch 7
24 Ch 7/8	25	26 Ch 8	27 HW #7 Due	28 Ch 8
March 2 Ch 9	3 HW #8 Due	4 Ch 9	5	6 Ch 9
9 Ch 10	10 HW #9 Due	11 Ch 10 & Review-2	12 Ch 6-9 Exam 2	13 Ch 10
16 Spring Break	17 Spring Break	18 Spring Break	19 Spring Break	20 Spring Break
23 Ch 11	24 HW #10 Due	25 Ch 11	26 HW #11 Due	27 Ch 12
30 Ch 12	31	April 1 Ch 12/13	2 HW #12 Due	3 Ch 13
6 Ch 13	7	8 Ch 13	9 HW #13 Due	10 Ch 14
13 Ch 14	14 HW #14 Due	15 Ch 15 & Review-3	16 Ch 10-14 Exam 3	17 Ch 15
20 Ch 15	21	22 Ch 15/16	23 HW #15 Due	24 Ch 16 & Rev/HW#16Due
27	28	29 Ch 1-16 Final Exam	30	May 1

Final Exam: Wednesday, April 29th from 7:00 pm until 9:30pm

NOTE: The last date to submit all the assignments (including make ups and extensions) is **April 24th, 2019**