

PHYS 2070: General Physics I

Class Meeting: TTH 8:00 am to 9:15 am Section 001 (CRN 80195) Daniel 100B
TTH 9:30 am to 10:45 am Section 002 (CRN 80196) Daniel 100B
Zoom location of class: <https://clemsun.zoom.us/j/4169084222>
Office Hours: by appointment via zoom (M, T, W, Th) or in person (T/TH only).
9:15 – 10:45 M, 11-12:15 TTH, 1:30-3 W
Teaching Assistant: Shannon Bonomi (sbonomi@g.clemson.edu)
Schedule an appointment here: <https://calendly.com/clemsonamy>



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Course Description:

PHYS 2070 General Physics I 3 (3) Introductory course for students who are not majoring in physical science or engineering. This course covers such topics as mechanics, waves, fluids, and thermal physics. Credit for a degree will be given for only one of PHYS 1220, 2000, or 2070. Preq or concurrent enrollment: MTHS 1020 or MTHS1040 or MTHS 1050. PHYS 2070 meets the general education student learning outcome of natural sciences with laboratory by demonstrating the process of scientific reasoning through experimental activity and critical comparison of their results to those predicted by accepted natural science principles.

Course Learning Outcomes:

1. The student will demonstrate the ability to think critically and to use appropriate concepts to analyze qualitatively problems or situations involving physics.
2. The student will demonstrate the ability to use appropriate mathematical techniques and concepts to obtain quantitative solutions to problems in physics.
3. The student will develop the ability to read, evaluate, and interpret numerical and general scientific information and apply physical principles to real-world problems then communicate effectively the reasoning behind the solution.

Students may vary in their competency levels on these abilities. You can expect to acquire these abilities only if you honor all course policies, attend class regularly, complete all assigned work in good faith and on time, and meet all other course expectations of you as a student.

It is important to develop critical thinking ability rather than mere memorization of facts. This is a vital skill set for your successful career in various fields. To develop these skills, you will work on in-class activities and homework assignments that involve defining and analyzing problems related to physics, identifying and evaluating options, inferring likely outcomes and probable consequences, then evaluating and explaining the reasons.

I have high expectations but I will provide scaffolded assistance so you can be successful. Students are expected to review materials daily, practice many problems and seek out assistance in a timely manner.

Course Modality:

This is an in-person course. Course attendance is expected. Students with extenuating circumstances regarding course attendance should reach out to the instructor for alternate arrangements. If the course needs to move to an online modality, we hold synchronously classes using zoom. Material covered in class will be posted.

I am excited to embark on a journey through physics with you this semester. I love teaching and engaging with students.

I received my PhD in Physics from Clemson University in 2002 and I have been teaching ever since. I love watching as students grasp the mathematical beauty of the world we live in!

I am happily married with four fantastic children. We foster children as well, so my house is always bustling with activity. I love to swim, kayak and paddle board. When it gets too cold for that, I love to hike.

I am excited that we will be able to complete this course together. Feel free to contact me with any questions.

Attendance Policy:

The academic resources of Clemson University are provided for your intellectual growth and development, and class attendance is critical to your education. Therefore, you should attend scheduled courses regularly to attain your academic goals. In the event of an emergency or illness, contact me, preferably before a class or an exam takes place. For an absence to be considered an excused absence, use the Notification of Absences form in Canvas to directly communicate with the instructor. If you are not sure where that is, see this [help sheet](#).

For any student asked to quarantine/isolate because of exposure to the virus, inform me through the Notification of Absences form, so that I know you will be online and can support your learning in the class. You will also need to discuss with me any make-up work if you are absent. We should stay in touch! Since this is an in-person course, you are expected to return to in-person attendance once cleared by the University or once your illness/emergency is past.

Please be aware that notification of illness / emergency / quarantine must be received within one week of the event, and you may be asked to provide documentation. Documentation may include a notice from the university regarding quarantine, or confirmation that you had a doctor's appointment (whether in person or virtually).

Students are expected to wait for 10 minutes past the start of the class if the instructor is not present before the assumption is made that class is cancelled.

Clemson Thinks2:

This course is designed to be part of the Clemson Thinks2 (CT2) program. "Critical thinking is reasoned and reflective judgment applied to solving problems or making decisions about what to believe or what to do. Critical thinking gives reasoned consideration to defining and analyzing problems, identifying and evaluating options, inferring likely outcomes and probable consequences, and explaining the reasons, evidence, methods and standards used in making those analyses, inferences and evaluations. Critical thinking is skeptical without being cynical, evaluative without being judgmental, and purposefully focused on following reasons and evidence wherever they may lead." <http://www.insightassessment.com/FAQ/FAQs-General-Critical-Thinking/What-is-Critical-Thinking-CT2>

Critical Thinking Methods of Teaching:

Critical thinking requires students to be active learners who engage in the material. Students need to be making decisions about what to believe or how to evaluate information. Critical thinking considers all aspects of a problem.

A variety of assignments (reflections, homework, and exams) in this course can be utilized as artifacts to demonstrate your refinement of critical thinking skills over the term.

Available Assistance:

In addition to the instructor's availability outside of regular class time, there are other opportunities for students to get help on course materials.

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. 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>).

I am available for office hours to answer any questions that you may have about the course or the course content. Schedule an appointment here: <https://calendly.com/clemsonamy>. Please see me privately if you have special needs or accommodations required in this course.

Prepare to do your BEST

Academic Continuity Plan for this Class:

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, class will be conducted in a virtual (online) form. The university issues official disruption notifications through email, website, text notification and Social Media. When notified, use one of the following links to navigate to Clemson Canvas where you will find important information about how we will conduct class:

- Primary access link: <http://www.clemson.edu/canvas>
- Secondary access link, if needed: <https://clemson.instructure.com/>
- You can also use the Canvas Student App. [Visit the downloads page](#) for this app.

Course activities will occur through the Canvas course.

Inclement Weather:

Any exam that was scheduled at the time of a class cancellation due to inclement weather will be given at the next class meeting or moved online. The instructor will contact you with further information. Any assignments due at the time of a class cancellation due to inclement weather will be due at the next class meeting unless the instructor communicates differently. 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.

Online Conduct:

Appropriate online academic conduct means maintaining a safe learning environment based on mutual respect and civility. All participants in Clemson courses are expected to behave professionally by adhering to these standards of conduct:

- Never transmit or promote content known to be illegal.
- Respect other people's privacy as well as your own.
- Forgive other people's mistakes.
- Never use harassing, threatening, embarrassing, or abusive language or actions.

Online communication that fails to meet these standards of conduct will be removed from the course. Repeated misconduct may result in being blocked from online discussions, receiving a grade penalty, or being dismissed from the course. Such misconduct in the online environment may also be reported to officials for appropriate action in accordance with University policy. If you ever encounter inappropriate content in our course, please contact me, the instructor, with your concerns.

Privacy Policy:

This course is designed with your privacy in mind. If, however, you feel that an assignment or technology tool undermines your right to privacy, please contact the instructor immediately. We will work together to determine an alternative assignment that will help you achieve the course learning outcomes.

- Preview lecture notes and skim through the text for the material that will be covered prior to viewing it. Education research shows that we must be exposed to material three times before it begins to sink in.
- Blank lecture notes can be printed from Canvas prior to lecture. Additionally, these notes may be annotated on your tablet. If you prefer to take notes by hand that is fine.
- Engage fully in class by listening or taking notes. While playing a game or surfing the web may be fun, it does not assist in your quest for physics knowledge.
- Watch each day's lecture with your equation sheet and calculator ready to solve problems...and use them.
- Even though there is no grade associated with the worksheets, it is highly recommended that you work through them BEFORE looking at the solutions. The key to this class is PRACTICE.
- Really DO the homework. Rely on your brain not the internet.
- Study often and in small spurts. The concepts in this course build on one another. Studying little by little will overall reduce your study time and result in improved grades.
- You are permitted an equation sheet on tests. You will have to study diligently to get good grades on the exams.
- The online text is not directly linked to what we cover in the class.
- Ask questions (ASC, office hours, friends) freely.

Course Content:

Topic 1: Introduction

Units, dimensional analysis, significant figures, converting units, order of magnitude calculations

Topic 3: Vectors in Physics

Scalars and vectors, components of vectors, Trigonometry review, adding and subtracting vectors, relative motion

Topic 2: One-Dimensional Kinematics

Position, distance and displacement, average speed and velocity, instantaneous velocity, acceleration, kinematics equations of motion

Topic 4: Two-Dimensional Kinematics

Motion in two dimensions, projectile motion, range

Topic 5: Newton's Laws of Motion

Force and mass, Newton's Laws of Motion, Forces in two-dimensions, weight force, normal force, frictional force, spring force, tension force

Topic 6: Applications of Newton's Laws

Solving Newton's Laws, Connected objects, circular motion

Topic 7: Work and Kinetic Energy

Work done by a constant force, kinetic energy, work-energy theorem, work done by a variable force, power

Topic 8: Potential Energy and Conservation of Energy

Conservative and non-conservative forces, potential energy, conservation of mechanical energy, work done by non-conservative forces

Topic 9: Linear Momentum and Collisions

Linear momentum, impulse, conservation of linear momentum, elastic and inelastic collisions, center of mass

Topic 10: Rotational Kinematics and Energy

Angular position, velocity and acceleration, rotational kinematics, rolling motion, rotational kinetic energy, moment of inertia, conservation of energy

Topic 11: Rotational Dynamics and Static Equilibrium

Torque, static equilibrium, angular momentum, conservation of angular momentum

Topic 12: Gravity

Newton's laws of universal gravitation, Kepler's Laws of planetary motion, gravitational potential energy, and energy conservation

Topic 13: Oscillations About Equilibrium

Periodic motion, simple harmonic motion, period of a mass on a string, pendulum period, damped and driven oscillators

Topic 14: Waves and Sound

Types of waves, waves on a string, harmonic wave functions, sound waves, wave intensity, Doppler effect, superposition and interference, standing waves, beats

Topic 15: Fluids

Density, pressure, Archimedes principle and buoyancy, fluid flow, Bernoulli's Equation

Reflection:

Reflection assignments are 10% of your course grade. Assignments are due at 11:59 pm on the day indicated in the schedule. These assignments focus on the metacognitive nature of learning. These assignments are designed to assist the student in learning how to learn.

Exams:

There will be five exams during the semester and one final exam. Each of the six exams is worth 10% of your final course grade. The lowest of the 6 exam grades will be dropped, which makes the total exam (five regular exams and the final exam) worth a total of 50% of your final grade.

All exams will be taken using the Respondus Lockdown browser with Webcam. This browser must be downloaded (newer versions now available) through the [Clemson University CCIT software download page](#). It is the student's responsibility to ensure that the browser is working prior to taking each exam.

The exams are closed notes/text. You may use a calculator and the course equation sheet during the tests. You will also want several blank sheets of scratch paper. You may not use any internet-based devices during the exam. The test will be administered through Canvas. You can take the exam in the classroom (will need to notify the instructor if you wish to use this option) or find a quiet place to take the exam. All audio and video will be recorded during the exam.

Make-up exam policy: If the scheduled exams are missed due to technical difficulties or other official excuses, the instructor must be informed promptly (within 24 hours of the actual exam) and the make-up exam should be scheduled and completed within a week of the actual exam. The make-up exams will need to be approved by the instructor based on the relevant documents/ explanation provided. Makeup exams not requested within the week following the actual exam will be given a zero.

Homework:

Homework assignments are 20% of your course grade. Homework is due at 11:59 pm on the day indicated in the schedule. For late submissions, there will be a penalty of 1% points deduction/ hour. Late homework can be submitted for up to 50% credit until **12/03/2021** at 11:59 pm. One homework grade is dropped. All due dates are recorded on the calendar at the end of the syllabus.

The cost for Expert TA is \$32.50 per semester per student. Expert TA offers students the option of a 14-day free trial. Any work done during the trial, including grades received, is saved and available after the license is purchased.

Clickers:

Clicker/participation grades are 20% of your final class grade. **Each clicker/participation grade is worth the same amount of credit (regardless of the number of raw points).** The lowest 4 clicker grades are dropped. Each question is graded as 80% credit for participation and 20% credit for correctness.

Clicker Makeup:

The 4 lowest (or missed) clicker grades will be dropped. If you miss class due to university excused absences or illnesses and notify the instructor through the Notification of Absences form in Canvas as well as email, you will have an opportunity to make up clicker grades. To take advantage of this, you must complete the Makeup Clicker assignment under the Assignments tab in Canvas.

Final Examination:

Your final exam is: 8:00 am section: Friday, Dec 10th from 7 pm to 9:30 pm
9:30 am section: Wednesday, Dec 8th from 8 am to 10:30 am

You will have 2.5 hours to take the exam. There are 33 questions on the exam which is cumulative. While there are no exemptions in this course, you may consider using the final exam as your dropped exam.

Extra Credit:

There are several extra credit opportunities listed under modules with their due dates shown in the course schedule. These are the ONLY extra points offered in the course. There will be NO ADDITIONAL POINTS awarded at the end of the semester. There will be no rounding of grades. If you feel you might be borderline you will want to complete these assignments. No late assignments will be accepted.

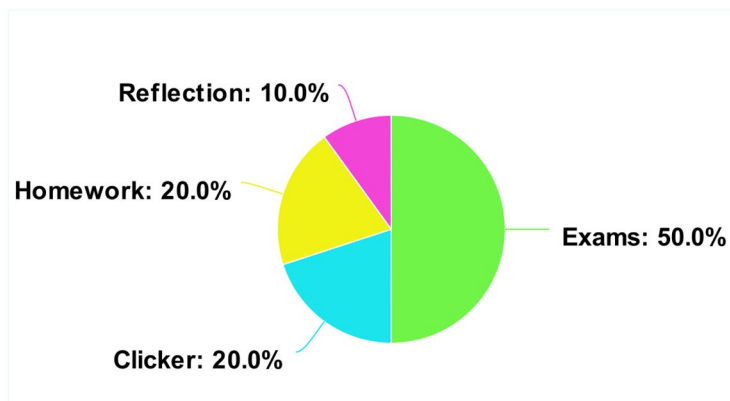
Determination of Final Grade:

Letter grades are calculated by dividing the total number of points earned by ten. Extra Credit adds for a total of 1% of your final course grade. No further changes to grades will be made after the last day of class. Points available are as follows:

5 test & final	highest 5 grades at 10% = 50%
Clicker	20%
Homework	20%
Reflection	10%
Extra Credit	1%
<hr/> Total	<hr/> 101%

The following scale will be used:

- A: 90% or higher
- B: 80% to 89.99%
- C: 70% to 79.99%
- D: 60% to 69.99%
- F: 0-59.99%



Required Materials:

The following materials are required for successful participation in the course:

- Expert TA account which can be purchased through Canvas for **\$32.50** per semester per student. Expert TA will be used for homework, class preparation quizzes and in class engagement. You may also purchase a code at the on-campus bookstore at a slightly higher rate.
- Download [OpenStax Urone and Hinrichs College Physics](#) (ISBN-10: 1-947172-01-8) **\$0.00**

- [Respondus](#) must be installed through the Clemson University offered download.
- Calculator (Any scientific calculator is fine.)
- [Adobe Reader \(free\)](#) or [Adobe Creative Cloud Acrobat \(free through Clemson\)](#)
- iClicker Reef which is **\$15.99** per semester per student.
- Ancillary information (texts, videos, audio, slides, notes) is provided in my Canvas course.



iClicker Cloud:

I will be using iClicker Cloud this semester to conduct quizzes in class. This will help me understand what you know and give everyone a chance to participate in class. This will also give you feedback on how well you are comprehending course concepts, help you master the challenging material in this class, and allow you to review material after class. You are required to bring a device to participate in clicker sessions during class. I will be allowing the use of iClicker Cloud app on a smartphone, tablet or laptop.

It is your responsibility to properly register your iClicker Reef device in a timely fashion. We will be using them for credit on the first Tuesday of class. It is also your responsibility to regularly check your iClicker grades for any discrepancies and bring them to my attention within one week of the assignment that is in question.

Once you download the iclicker app (via the App Store or Google Play, or by visiting iclicker.com), **you must connect your Reef account within our learning management system**. To do this, you must navigate to the iClicker Sync link on the left hand menu bar in Canvas, select the link, then sign into your iClicker account from the window that opens. This will sync your clicker with the Canvas gradebook. It is also recommended that you enter your Clemson email (without the g ex. amyj@clemson.edu) accurately in the Student ID field of your iClicker profile.

Upon signing up with iClicker, you will have a 2-week free-trial period. After that point, you will need to purchase an iClicker subscription (\$15.99 for 6 months) if you want to participate in iClicker sessions with your mobile device, tablet, or laptop. [Click here to learn about your options for purchasing a Reef subscription.](#)

iClicker support is found by visiting iclicker.com/support at any time. If you continue to experience issues, please contact iClicker support via phone (866.209.5698) or email (support@iclicker.com). Live support is available Monday - Thursday from 9AM - 11PM, ET and Friday from 9AM - 9PM, ET.

Signature Assignment:

The signature lab assignment for this course is the 'Pressure Lab'. Students follow experimental procedures, collect data, and analyze data to compare their results to accepted physical principles. For the lab, students measure atmospheric pressure, which is compared to accepted values, and pressures at various depths. They analyze their data to calculate the density of an unknown material using the physical principle of gauge pressure.

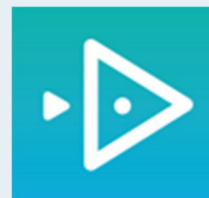
Make Sure you Have These



Expert TA purchased
through Canvas
\$32.50



Download OpenStax
Urone and Hinrichs
College Physics
FREE



[iClicker REEF](#)
\$15.99

General Policies and Procedures:

Students are expected to adhere to all policies and procedure outlined by Clemson University at: [University Policies: http://www.clemson.edu/administration/student-affairs/student-handbook/universitypolicies/index.html](http://www.clemson.edu/administration/student-affairs/student-handbook/universitypolicies/index.html).

Academic Integrity:

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.

All infractions of academic dishonesty by undergraduates must be reported to Undergraduate Studies for resolution through that office. In cases of plagiarism instructors may use the Plagiarism Resolution Form.

See the [Undergraduate Academic Integrity Policy](#) website for additional information and [the current catalogue](#) for the policy.

For graduate students, [see the current graduate student handbook](#) for all policies.

ACADEMIC GRIEVANCES

Undergraduate students are advised to contact the Ombuds' Office prior to filing an academic grievance. If the undergraduate academic ombudsman agrees that a grievable issue has occurred, students can contact Undergraduate Studies (656-3022) for assistance filing official paperwork within 30 days of the semester following the awarding of a disputed grade.

Graduate students follow the [Graduate Student Handbook](#) (per the catalogue, "grievances must be filed with the Graduate School within 60 days of the alleged act.")

Engagement activities fall under the provisions of our campus's academic honesty policy. Students must not engage in academic dishonesty while participating in in-class engagement activities. *This includes but is not limited to answering polling questions while not physically in class, looking at other students' devices while answering live questions, requesting for answers to assignment problems in chat apps or other web-based platforms, or using more than one ExpertTA account at a time.*

TEST QUESTIONS ARE NOT TO BE DISCUSSED UNTIL THE TEST GRADES ARE RELEASED TO YOUR CLASS. Breach of this policy will constitute academic dishonesty.

Title IX:

The Clemson University Title IX 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 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. This [Title IX policy](#) is located on the Campus Life website. Ms. Alesia Smith is the Clemson University Title IX Coordinator, and the Executive Director of Equity Compliance. Her office is located at 223 Brackett Hall, 864.656.0620. Remember, email is not a fully secured method of communication and should not be used to discuss Title IX issues.

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 five times per week for important messages. You will want to have your canvas announcement forwarded to your email or check your Canvas messages with a frequency of 5 times per week. Please make sure that your emails are professional in nature.

Safe Campus Environment:

Emergency procedures have been posted in all buildings and on all elevators. Students should be reminded to review these procedures for their own safety. All students and employees should be familiar with guidelines from the Clemson Police Department. [Visit here for information about safety.](#)

Clemson University is committed to providing a safe campus environment for students, faculty, staff, and visitors. As members of the community, we encourage you to take the following actions to be better prepared in case of an emergency:

1. Ensure you are signed up for [emergency alerts](#)
2. Download the [Rave Guardian app](#) to your phone (<https://www.clemson.edu/cusafety/cupd/rave-guardian/>)
3. [Prepare yourself](#) for an active threat (<http://www.clemson.edu/cusafety/EmergencyManagement/>)

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.

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](tel:864.656.6848) or visit SDS's website: <http://www.clemson.edu/campus-life/campus-services/sds/about.html>. It is expected that the student will test in the proctor center.

Academic Support Services:

Students may access a variety of academic support services to support your learning in the online classroom. Here are links to services available:

[Academic Success Center](http://www.clemson.edu/asc/staff.html) <http://www.clemson.edu/asc/staff.html>

[The Writing Center](http://www.clemson.edu/centers-institutes/writing/) <http://www.clemson.edu/centers-institutes/writing/>

[Clemson Online Library Guides](http://libguides.clemson.edu/distanced) <http://libguides.clemson.edu/distanced>

[Online Library Resources](http://www.clemson.edu/library/) <http://www.clemson.edu/library/>

[CCIT \(Tech Support\)](http://www.clemson.edu/ccit/help_support/) http://www.clemson.edu/ccit/help_support/ or [CCIT \(Tech Support\) email:ithelp@clemson.edu](mailto:ithelp@clemson.edu)

[Academic Advising](http://www.clemson.edu/academics/advising/index.html) <http://www.clemson.edu/academics/advising/index.html>

[Registrar](http://www.registrar.clemson.edu/html/indexStudents.htm) <http://www.registrar.clemson.edu/html/indexStudents.htm>

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Commitment to Diversity:

Clemson University aspires to create a diverse community that welcomes people of different races, cultures, ages, genders, sexual orientation, religions, socioeconomic levels, political perspectives, abilities, opinions, values and experiences.

Phys 2070 Course Schedule:

Due dates are fixed as per the schedule. On rare instances I will grant more time on an assignment if we have not yet covered the material but please consider this a fixed document of due dates otherwise.

August 16	17	18	19 Topic 1	20 HW 1 due
23	24 CLASS Clicker 1 -Topic 2	25 Reflection 1	26 Clicker 2 -Topic 15	27 HW 2 due HW 15 due
30	31 Test 1 Topics 1, 2, 15	September 1 Reflection 2	2 Clicker 3 -Topic 3	3
6 EC STRAW	7 Clicker 4 -Topic 3	8 Reflection 3	9 Clicker 5 -Topic 4	10 HW 3 due
13	14 Clicker 6 -Topic 4	15 Reflection 4	16 Clicker 7 -Topic 4	17 HW 4 due
20 EC TOPIC	21 Test 2 Topics 3, 4	22 Reflection 5	23 Clicker 8 -Topic 5	24
27 EC TABLECLOTH	28 Clicker 9 -Topic 5	29 Reflection 6	30 Clicker 10 -Topic 6	October 1 HW 5 due
4	5 Clicker 11-Topic 6	6 Reflection 7	7 Clicker 12 -Topic 7	8 HW 6 due
11 FALL BREAK	12 FALL BREAK	13 Reflection 8	14 Clicker 13 -Topic 7	15 HW 7 due
18 EC FORK	19 Test 3 Topics 5, 6, 7	20 Reflection 9	21 Clicker 14 -Topic 8	22 HW 8 due
25	26 Clicker 15 -Topic 9	27 Reflection 10	28 Clicker 16 -Topic 9/10	29 HW 9 due
November 1 EC TOPIC	2 Clicker 17 -Topic 10	3 Reflection 11	4 Clicker 18 -Topic 11	5 HW 10 due HW 11 due
8	9 Test 4 Topics 8, 9, 10, 11	10 Reflection 12	11 Clicker 19 -Topic 12	12 HW 12 due
15 EC ANGULAR	16 Clicker 20 -Topic 13	17 Reflection 13	18 Clicker 21 -Topic 13	19 HW 13 due
22 EC TOPIC	23 FCI Clicker 22 -Topic 14	24 Thanksgiving Break	25 Thanksgiving Break	26 Thanksgiving Break
29 EC COURSE EVAL	30 Test 5 Topics 12, 13, 14	1 Reflection 14	2 Clicker 23 –REVIEW	3 HW 14 due

Aug 31: Last day to drop a class or withdraw from the University without a W grade

Oct 26: Last day to drop a class or withdraw from the University without final grades

Dec 3: All homework grades finalized at 11:59 pm

Final exam: 8:00 section: Friday, Dec 10th from 7 pm to 9:30 pm

9:30 section: Wednesday, Dec 8th from 8 am to 10:30 am