

PHYS 115: Physical Sciences

Instructor	Joe Storm, jhstorm@alaska.edu
Meeting Times	Lecture: Tues Thurs 5:20-6:50 PM REIC 202 Lab: Tues or Thurs 7-10PM REIC 253
Office Hours	Tue & Thurs 4:20PM-5:20PM REIC 116 I am available by appointment in the evenings or weekends.
Credits	4 credits (3 hours of lecture + 3 hours of lab per week)
Text	<i>Physics of Everyday Phenomena, 8e by Griffith</i>
Prerequisites	Placement in WRTG F111X; placement in MATH F105. Must be enrolled in PHYS F115L

Course Requirements and Policies

Course Goals	The course will cover the fundamentals of classical physics in the real world: mechanics, thermodynamics, electricity, magnetism, and optics. It will also focus on how these topics are interrelated and interdependent.
Class Attendance	For the best understanding of the course material attendance and participation during class is essential.
Reading Assignments	Class time will be a balance of lecture, demonstrations, and practice problems. As such, reading the chapter ahead of time will be essential for understanding what we do in class. Reading assignments are accounted for in the homework credit amount.
Homework	Due each week (besides the first week) at the beginning of class on Thursday. Late work will receive a 50% deduction and will not be accepted beyond the Monday after it was due. Homework will be posted on Blackboard at least a week before it is due. Each assignment will be graded out of 100 points.
Quiz	A short quiz will occur at the start of Thursday's class, based on the past week's readings, concepts covered, and homework. It will be open notes but not open book.

Exams

I will provide an equation sheet for the exam and a study guide beforehand. The midterm will be on **Tuesday March 7th** and will cover Chapters 1-7. The Final will be on **May 4th from 5:45- 7:45** and will cover Chapters 8-14. Please notify me beforehand if you will be absent on the day of an exam.

Labs

There is a lab component associated with this course. ALL labs and reports must be completed to get a passing grade for the lab. Labs may only be made up if excused and with permission of the course instructor. Proof of vaccination is required to take part in the lab.

A passing grade in the lab is required to pass the course.

Grading:

Quiz 15% Lab 20 % Homework 25 % Midterm 20 % Final Exam 20 %

Grading Ranges

>90% = A >80% = B >70% = C >60% = D

Allowed grades will be limited to A, B, C, D, IN, NB, F, and no plus-minus grades will be given for this course.

Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy: "The letter "I" (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the students control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an "I" grade.

Class Schedule

Date	Topic	HW Due	Readings Due
Tues 1/17	Syllabus, Scope of physics		Ch1: 1-5
Thurs 1/19	Speed, Velocity, and Acceleration		Ch 2: 1-3
Tues 1/24	Uniform Acceleration		Ch 2: 4-5
Thurs 1/26	Quiz 1, Falling Objects	HW 1	Ch 3: 1-3
Tues 1/31	Projectile Motion		Ch 3: 4-5
Thurs 2/2	Quiz 2, Newton's Laws	HW 2	Ch 4: 1-3
Tues 2/7	Applications of Newton's Laws		Ch 4: 4-5

Thurs 2/9	Quiz 3, Centripetal Motion	HW 3	Ch 5: 1-2
Tues 2/14	Planetary Motion		Ch 5: 3-5
Thurs 2/16	Quiz 4, Work, Power, & Energy	HW 4	Ch 6: 1-3
Tues 2/21	Conservation of Energy		Ch 6: 4-5
Thurs 2/23	Quiz 5, Momentum/Impulse	HW 5	Ch 7: 1-2
Tues 2/28	Collisions		Ch 7: 3-5
Thurs 3/2	Quiz 6, Rotational Motion	HW 6	Ch 8: 1-3
Tues 3/7	Midterm Exam		
Thurs 3/9	Angular Momentum		Ch8: 4-5
Tues 3/14	Spring Break		
Thurs 3/16			
Tues 3/21	Fluids		Ch 9: 1-3
Thurs 3/23	Quiz 7, Temperature & Heat	HW 7	Ch 9: 4-5
Tues 3/28	Heat Engine and 2nd Law		Ch 10: 1-5
Thurs 3/30	Quiz 8, Heat Pump & Entropy	HW 8	Ch 11: 1-3
Tues 4/4	Electric Charge & Coulomb's Law		Ch 11: 4-5
Thurs 4/6	Quiz 9, Electric Field & Potential	HW 9	Ch 12: 1-3
Tues 4/11	Electric Circuit & Ohm's Law		Ch 12: 4-5
Thurs 4/13	Quiz 10, Electrical Energy and Power	HW 10	Ch 13: 1-3
Tues 4/18	Magnetic Force		Ch 13: 4-5
Thurs 4/20	Quiz 11, Faraday's Law	HW 11	Ch 14: 1-3
Tues 4/25	Wave, Sound, & Light		Ch 14: 4-5
Thurs 4/27	Quiz 12, Review	HW 12	
Thurs 5/4	Final Exam 5:45PM - 7:45PM		

*Instructor reserves the right to make changes as needed

<p>Student Code of Conduct</p>	<p>You are expected to submit work that is your own and properly acknowledge the work of others. You are responsible for understanding and adhering to the Student Code of Conduct that is printed in the UAF Course Catalog. Abide By It. Violations of the Code will be reported to the Dean of Students.</p>
<p>Student Resources & Disability Statement</p>	<p>I will work with the Office of Disability Services to provide reasonable accommodation to students with disabilities.</p> <ul style="list-style-type: none"> • Disability Services 907-474-5655, uaf-disability-services@alaska.edu, Whitaker 208 • Student Health & Counseling [6 free counseling sessions] (907-474-7043, https://www.uaf.edu/chc/appointments.php, Whitaker 203) • Center for Student Rights and Responsibilities (907-474-7317, uaf-studentrights@alaska.edu, Eielson 110) • Associated Students of the University of Alaska Fairbanks (ASUAF) or ASUAF Student Government (907-474-7355, asuaf.office@alaska.edu, Wood Center 119)
<p>Student Academic Support</p>	<ul style="list-style-type: none"> • Speaking Center (907-474-5470, uaf-speakingcenter@alaska.edu, Gruening 507) • Writing Center (907-474-5314, uaf-writing-center@alaska.edu, Gruening 8th floor) • UAF Math Services, uafmathstatlab@gmail.com, Chapman Building (for math fee paying students only) Developmental Math Lab, Gruening 406 • The Debbie Moses Learning Center at CTC (907-455-2860, 604 Barnette St, Room 120, https://www.ctc.uaf.edu/student-services/student-success-center/) • For more information and resources, please see the Academic Advising Resource List (https://www.uaf.edu/advising/lr/SKM_364e19011717281.pdf)

<p>Student Protections & Services</p>	<p>UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination (Title IX). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site:</p> <p>https://catalog.uaf.edu/academics-regulations/students-rights-responsibilities/.</p>
<p>Nondiscrimination Statement</p>	<p>The University of Alaska is an affirmative action/equal opportunity employer and educational institution. The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status. The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment. Contact information, applicable laws, and complaint procedures are included on UA's statement of nondiscrimination available at www.alaska.edu/nondiscrimination.</p> <p>For more information, contact: UAF Department of Equity and Compliance 1692 Tok Lane, 3rd floor, Constitution Hall, Fairbanks, AK 99775 907-474-7300 uaf-deo@alaska.edu</p>



Source: xkcd

This syllabus represents an agreement between the instructor and student on the expectations of the class for both parties. Please sign below after reviewing the syllabus and turn in this signature page. Thank you for participating in this class, I look forward to the semester with you.

Instructor: Joe Storm

Instructor Signature:

Student Name: _____

Student Signature: _____