

Syllabus for General Physics I, PHYS 211X

Spring 2021

Lecture
MWF 5:50-6:50 PM, REIC 201

Laboratory
REIC 254

33763 T 6:00-9:00 PM

- Course:** PHYS 211X
- CRN:** 33764
- Course Type:** In person classroom teaching and Laboratory
- Instructor:** Ataur R. Chowdhury
- Office:** REIC 118
- Office Hours:** MW 2:00-3:30 PM
- Contact:** Phone (907) 474-6109
Fax (907) 474-6130
Email archowdhury@alaska.edu
- Prerequisites:** Concurrent enrollment in MATH 252x; placement in ENGL 111x or higher; or permission of instructor. Recommended: one year of high school physics.
- Text:** Physics for Scientist and Engineers: A strategic Approach, Randall D. Knight, Fourth Edition, Pearson.
- Course Outline:** Calculus-based introduction to classical mechanics, including: kinematics, Newton's laws, momentum, work, energy, gravity, rotational motion, oscillations, and fluids.
- Special notes:** Additional topics include waves. The laboratory part is integrated in the course.
- Course Objectives:** To acquire a basic understanding of (1) the fundamentals of motion of objects, (2) propagation of waves, (3) statics and dynamics of fluidic motion, and (4) traveling waves.

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in class quizzes (see next). All quizzes will be given in class at least one every week during lectures for a duration of 15-20 minutes each.

Participation/Quiz: During the lecture, the students will be expected to take part in meaningful discussion and ask questions to better comprehend the subject material. To engage students in active participation, there may be, from time to time, some pop quizzes and clicker questions. These quizzes will be administered anytime during the lecture, and are designed to test students understanding of the subject material covered during the preceding week. The quiz may include problems similar to the homework, those worked out in class, and may also include 'intuitive' question pertaining to the subject material covered during the previous week. All pop quizzes/clickers will take place online, using Google forms, and has to be submitted online.

Make-up quizzes, if you miss class for valid reasons, may be arranged with approval from the instructor.

Homework:

On the average, 8-12 problems/exercises/questions will be assigned each week on Fridays, and these will be posted on the blackboard. The homework will be due back by 5:00 PM on Fridays the following week. The homework has to be submitted in the dropbox assigned for homework on the blackboard. **NO LATE HOMEWORK WILL BE ACCEPTED. NO EXCEPTIONS** (barring emergencies and extreme situations). Group work is highly encouraged for solving problems, and for additional help with the homework the students are most welcome to consult the instructor during the office hour or any other time by prior appointment. Any homework you submit should reflect your own best effort. Copying of homework is absolutely not acceptable and will result in a grade of zero for the assignment. All assignments on homework will be posted on the Black Board, and solutions have to be uploaded on the Black Board in their respective drop box.

Examinations:

There will be one midterm/sectional examination (February 19, Friday, 5:50-6:50 PM) and a final comprehensive examination (April 28, Wednesday, 7:00-12:00 PM) in BT/F2 12 Tf1 0 0 1 237.29 234.41

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Syllab

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Protection:

UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: alaska.edu/nondiscrimination.

Services:

Effective communication: Students who have difficulties with oral presentations and/or writing are strongly encouraged to get help from the UAF / t h a # q o(t

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Syllab

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26 make up lecture

28 **Final Examination** 7:00-9:30 PM, Wednesday, April 28, REIC 201

PHYSICS 211X LABORATORY

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