

# 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](mailto: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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course must be the original work of the individual student. Failure to comply with this policy will result in penalty as stipulated under UAF regulations.

### Course Evaluation:

The final grade for this course will be based on student's performance on homework and final, and will be weighted as follows.

Homework	15%
Lab	15%
Paper	10%
Participation/Quiz	24%
Midterm	15%
<u>Final</u>	<u>21%</u>
Total	100%

The final grading for this course will be based on a curve. For a given score, your letter grade will not be lower than what it would be expected based on standard grading scale (90-100 = A, 80-90 = B, etc.). Allowed grades are limited to letter grades A,B,C,D,F,I,BN, and no plus-minus grades will be given for this course.

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 student's 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."

### Student Protections and Services:

COVID-19 Essentials:

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Protection:

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UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: [alaska.edu/nondiscrimination](http://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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26 make up lecture

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

## PHYSICS 211X LABORATORY

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