

TATIANA STANTCHEVA

PHY 130 OUTLINE

PHY 130 Course Outline

[PHY130 Survey of Applied Physics](#)

Course Description and Purpose

Surveys topics from mechanics, thermodynamics, waves, electricity and magnetism. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. 3 credits.

A general survey of the fundamental principles of physics as applied to new technologies. Mechanics, material science, waves motion, and electricity are covered as essential components of any technology.

Prerequisites

Students are expected to have some basic arithmetic, high school algebra and geometry at the level of Developmental Math MTT 3.

Additional Requirements

- Access to a computer with fast internet connection.
- Familiarity with some form of Editing Software, such as Microsoft Office, Open Office, Google Documents, etc.
- Knowledge of how to use a basic calculator. Graphing calculators are not required.
- In the event of emergencies, students may be required to participate in virtual classes through [Blackboard Collaborate](#).

Course Objectives and Learning Outcomes

Upon completion of the course, students should be able to:

- Discuss and analyze qualitatively a variety of problems and situations they encounter in their professional, personal, and educational activities.
- Apply critical thinking to their respective occupational field and day-to-day life.
- Use and manipulate formulae that relate to physical phenomena.
- Collect and record experimental data and obtain meaningful results.
- Communicate effectively on course related issues.
- To research on physics topics.

Textbook

There is no required textbook. The course is based on [Applied Physics](#), Dale Ewen, Neill Schurter, and Erik Gundersen, 10 Ed. Students are expected to purchase a PHY 130 Workbook.

Laboratory Safety Rules

- Only students officially enrolled in the class are allowed in the physics laboratory.
- Open-toe shoes such as sandals and flip-flops are prohibited in the laboratory. All shoes must provide adequate foot protection.
- All students must be acquainted and abide by the safety rules as published on [the Physics Laboratory Webpage](#).
- Students in violation of the safety rules will be asked to leave the laboratory.

General Course Organization and Policies

Assignments, Grading, and Make-up Policy

The course grade is comprised of labs and lab assignments, weekly homework, class tests and a final exam. For more details, contact directly the course instructor.

Grading Scale: A: 90-100% B: 80-89% C: 70-79% D: 60-69% F: <60%

One lab will be dropped from the lab grade. The lowest test score will be dropped from the exam grade. No lab or test make-ups are allowed.

Attendance

Students are expected to attend all scheduled classes. If an online meeting is scheduled, due to an emergency or other reason, student participation in those meetings counts towards their attendance

Students are responsible to know all the material covered in class regardless of whether they have attended class or not.

Withdrawal/Incomplete/Audit

Last day to drop the class with Tuition Refund is [Census Date](#). No Audit will be permitted after the [Census Date](#). Students who have not attended class by the [Census Date](#) will be administratively withdrawn from the class.

No withdrawals will be permitted after [the Last Day to Withdraw Without Grade Penalty](#). Students are responsible for withdrawing themselves from the class.

Incomplete Grade may be given only to students who have earned already 70% of the class grade and have documented special circumstances that preclude them from finishing the class in time. In such cases, they must complete the class by the end of the following semester, or their grade will automatically revert to the earned grade.

Academic Dishonesty

Students are expected to abide by the [College's Rules on Academic Dishonesty](#). Be advised that:

- Cheating will not be tolerated in any form. Copying and using someone else's work to obtain credit, as well as letting someone else copy your work, is considered cheating. Any cheating incident will be reported to the Dean of Students and may then become part of your official student record.
- Cheating on any assignment will result in failing that assignment. A second instance of cheating will result in automatic failing of the class!
- All assignments are individual unless otherwise specified.

The use of unauthorized electronic devices during an exam is considered cheating.

Students who show a discrepancy greater than a full letter grade between their performance on two separate class assignments (in-class or outside class), may be required to take an additional exam. In that case, the instructor will decide how the additional exam grade will be factored into the overall course grade.

Disability Accommodations

No disability accommodations will be provided unless a Disability Data Sheet is provided to the instructor. Those seeking accommodations based on disabilities should obtain a Disability Data Sheet through

[the Counselor for Special Needs.](#)

Classroom Etiquette

Feel free to express yourself freely during class discussions; however, always be respectful and polite to your fellow classmates. Address your instructor by their last name.

During class, students may not use cell phones and other electronics devices except for direct and immediate classwork.

In their emails, posts and any other form of electronic communication, students are expected to address their recipient properly and courteously, include the course title and number in the subject line, and to sign their full name at the end of their message.

EDIT

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PHY 130 GRADING

Grading Policies

Grading Scale

A: 90% or above; B: 80 – 89%; C: 70-79%; D: 60- 69%

Course Grade

Total of 100 points. The course grade is comprised of Laboratory (40%) and Exam (60%) grade

Lab Grade and Policies (40 pts)

All lab experiments are worth 4 pt each. Students who are late for lab by more than 15 minutes, may still do the lab but will receive no credit for that experiment.

For full lab credit, students must perform 10 lab experiments. There are no lab make-ups.

Exam Grade and Policies (60 pts)

There will seven tests each worth 10 pts. The lowest grade test will be dropped from the course grade. The remaining six test grades will count towards the total exam grade. The tests will be a mix of multiple choice and essay questions and will reflect the work done in class, both in laboratory and lecture.

A formula sheet will be provided by the instructor on exam day.

There will be no make-up exams, regardless of the circumstances.

If a student knows in advance that he or she will have to miss a test, an arrangement may be made with the instructor for the test to be taken *in advance*.

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