

PHYS 202 Summer 2026

PHYSICS IV

Introductory Modern Physics

Announcements

Important: Please also follow the course moodle page for the announcements.

Course Info

PHYS 202 (Introductory Modern Physics) 4 Cr

Class Schedule: MMMM WWWW ThThThTh 1234 1234 1234

Prerequisite: PHYS 201

Instructor: Prof. Özhan Özatay

Office Hours: By appointment

Exams and Grading

PHYS 202

- There will be 1 midterm exam and a final exam

<u>Grading</u>	<u>Exam Dates</u>
----------------	-------------------

40% Midterm	Chapters 30-36
-------------	----------------

TBA

20% Lab Grade (10/20 required to pass the course)

40% Final All Inclusive

- All exams will be closed book & closed notes.
- Calculators/cell phones/laptops are not allowed.
- In all exams you must show your work explicitly and you must use the proper units.
- Attempting to cheat in any of the exams in the university is a serious crime and if caught any disciplinary action can result in being unable to work in or for any state institution for the rest of the career..
- For symbolic calculations with no units, it is strongly recommended to check the dimensions in the final answer.
- All symbolic answers must be in terms of the parameters given in the problem statement and universal physical constants.
- Students can not leave the exam room in the first 15 minutes of the exam and those who are more than 15 minutes late to the exam will not be admitted to the exam.
- All exam grades will be announced on the course moodle page.
- An objection date/time and place will be announced on the moodle page. Students can only see their exams during this time interval. Do not ask to see your paper some other time as the exams will be immediately sent to archive after the objection.
- There is no option for objection via email. You have to be physically present during the objection time.

Students with a total midterm grade below 10 (out of 40) cannot take the final exam!



No need based grading!!! This means the following answer to common questions:

"I have questions 20 or 25 left to redo but I can't redo this because of this, please let me redo to 20?"

- I am expecting a CC or CB letter grade but I want to repeat this course so could you please lower my grade to DC ? or
- " The grade that I will receive from this course will result in the loss of my financial aid since my GPA will be below a critical value. Is it possible to push my letter grade up a notch?" or
- " If I fail this course it will cost me one more year and I won't be able to do my internship. Could you please let me pass?" or
- " One of my relatives is seriously sick or has just passed away. Therefore, I can not concentrate in the exams so please do me a favor and let me pass the course even if I performed poorly in the exams"

- No. It is illegal to change a letter grade and such unlawful behavior is "usulsüzlük" which can lead to several months of imprisonment. Furthermore pushing the course instructor to break the course rules by showing up in the office and sending irritating messages is a type of harassment, which can result in disciplinary action against you.

The final letter grades will be determined according to the distribution of cumulative grades.

Contents

Electromagnetic oscillations, AC circuits. Maxwell's equations, electromagnetic waves, light and its propagation, reflection, refraction, geometrical optics, interference and diffraction, gratings and spectra, polarization, the particle-like properties of electromagnetic radiation: photons, Bohr model and the spectrum of the hydrogen atom.

Labs

For all questions related to lab experiments, see the web page below:
<http://physlab.bogazici.edu.tr/>

Lectures

All lectures are available online at :

[PHYS 202 Youtube Videos](#)

Problems and Solutions are available online at:

[PHYS 202 Problems and Solutions](#)

TOPICS TO BE COVERED**Week 1**

Chapter 30 LC & RLC Circuits

Chapter 31 Alternating Current - I

Chapter 31 Alternating Current - II

Week 2

Chapter 32 Electromagnetic Waves

Chapter 33 The Nature and Propagation of Light

Week3

Chapter 35 Interference

Chapter 36 Diffraction

Week 4

Chapter 37 Relativity - I

Chapter 37 Relativity - II

Week5

Chapters 38 Photons

Chapter 39 Particles as Waves

Week 6

Chapter 40 Quantum Mechanics-I

Chapters 40, 41 Quantum Mechanics-II

Week 7

Chapter 41 The Hydrogen Atom

Make-Up Rules

- There will be no make-up exam in summer school.

Attendance and Class Participation

PHYS 202

There is no attendance requirement. **Students are highly encouraged to come to class on time and be ready to discuss the lecture material.**

