PHYS180 Conceptual Physics   **SYLLABUS**   **2025-2026 Fall Semester**

Course Outline:

Week 1	About Science (Chapter 1), Kinematics (Chapters 2, 4)
Week 1	About Science (Chapter 1), Kinematics (Chapters 2, 4)
Week 2	Kinematics (Chapters 5, 6, 7)
Week 3	Kinematics (Chapters 8, 9), Matter (Chapters 10, 11, 12)
Week 4	Matter (Chapters 13, 14), **Midterm 1 (Sunday)**
Week 5	Thermodynamics (Chapters 15, 16)
Week 6	Thermodynamics (Chapters 17, 18)
Week 7	Sound and waves (Chapter 19)
Week 8	Sound and waves (Chapters 20, 21), **Midterm 2 (Sunday)**
Week 9	Electricity and Magnetism (Chapters 22, 23, 24)
Week 10	Light (Chapters 26, 27)
Week 11	Light (Chapters 29, 30)
Week 12	Quantum Physics (Chapters 31, 32), **Midterm 3 (Sunday)**
Week 13	Nuclear Physics (Chapters 33, 34)
Week 14	Special Relativity ("Einstein Online", see below)
Week 15	General Relativity ("Einstein Online", see below)

Textbook: Conceptual Physics by Alyssa Pasquale, David Fazzini, and Carley Bennett.
- This open textbook is free to download from: https://cod.pressbooks.pub/physics1100/
- Each week, there will be reading assignments from this textbook.
- In weeks 14 and 15, reading will be from the "Einstein Online" website by the Max Planck Institute for Gravitational Physics: https://www.einstein-online.info/en/category/elementary/

Instructors: Note that all three sections will be coordinated (common HW/Exam/grading).
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Grading:

Midterm Exam 1	20%	
Midterm Exam 2	20%	
Midterm Exam 3	20%	
Final	20%	
Homework (Total 4)	20%	

Total Grade	Letter Grade
[90, 100]	A
[85, 90)	A-
[80, 85)	B+
[70, 80)	B
[65, 70)	B-
[60, 65)	C+
[50, 60)	C
[45, 50)	C-
[40, 45)	D+
[30, 40)	D
[0, 30)	F

Exams: There will be **three midterms and one final,** each focusing on subjects covered since the last exam. All exams are closed-book and in-person. Only Bilkent Health Center-approved medical reports are accepted for requesting a Make-Up exam.

Homework: A total of **four homework** will be assigned on **Moodle** throughout the semester. Homework will include some multiple-choice questions, as well as a few discussion questions with a single paragraph answer each. Please view the homework as a practice for the exams, and answer discussion questions **on your own**. Do not rely on GenAI.

Attendance: For each lecture attendance will be taken; as Bilkent University demands 70% attendance to classes. All students will be admitted to the Final exam.