



T.C.  
İSTANBUL TEKNİK ÜNİVERSİTESİ  
FEN EDEBİYAT FAKÜLTESİ  
FİZİK MÜHENDİSLİĞİ BÖLÜMÜ  
MASLAK 34469 İSTANBUL



## PHYSICS 102E – 2023/2024 FALL

### TEXTBOOK:

H. D. Young and R. A. Freedman, University Physics 12th-14th Ed. Pearson (2008, 2016).

### SUPPLEMENTARY TEXT:

1. D. C. Giancoli, Physics for Scientists & Engineers with Modern Physics (4th Edition), Pearson (2007)
2. D. Halliday, R. Resnick & J. Walker, Fundamentals of Physics (8th Ed.), John Wiley (2008).
3. R. A. Serway & J. W. Jewett, Physics for Scientists and Engineers (7th Ed.), Brooks Cole (2007).

Week	Date	Chapter	Topics
1	October 2, 2023	Chapter 21	Electric Charge and Electric Field (21.1 – 21.7)
2	October 9, 2023	Chapter 22	Gauss's Law (22.1 – 22.5)
3	October 16, 2023	Chapter 23	Electric Potential (23.1 – 23.5)
4	October 23, 2023	Chapter 24	Capacitance and Dielectrics (24.1 – 24.4)
5	October 30, 2023	Chapter 25	Current, Resistance and Electromotive force (25.1 – 25.5)
6	November 6, 2023	Chapter 26	Direct-Current Circuits (26.1 – 26.5)
7	November 13, 2023	Chapter 27	Magnetic Field and Magnetic Forces (27.1 – 27.7)
8	November 20, 2023	Chapter 28	Sources of Magnetic Field - Biot Savart&Ampere's laws (28.1 – 28.7)
9	November 27, 2023	Chapter 28	Sources of Magnetic Field - Biot Savart&Ampere's laws (28.1 – 28.7)
10	December 4, 2023	Chapter 29	Electromagnetic Induction - Faraday's law (29.1 – 29.5, 29.7)
11	December 11, 2023	Chapter 29	Electromagnetic Induction - Faraday's law (29.1 – 29.5, 29.7)
12	December 18, 2023	Chapter 30	Inductance – Inductors (30.1 – 30.6)
13	December 25, 2023	Chapter 32	Electromagnetic Waves (32.1 – 32.5)
14	January 1, 2024	Chapter 32	Electromagnetic Waves (32.1 – 32.5)

### Exams:

Midterm I : November 4, 2023 Saturday, 13:00 – 15:00. Topics: Chapter 21 – Chapter 24

Midterm II : December 16, 2023 Saturday, 13:00 – 15:00. Topics: Chapter 21 – Chapter 28

Final Exam : (Exact date and time will be announced by the Student Administration Office. Includes all chapters).

**Letter Grade Weights:** Midterm I : 30%, Midterm II : 30%, Final Exam : 40%

### Remarks

- The exams will consist of multiple-choice questions. Exam grades will be calculated by subtracting one quarter of the number of wrong answers from the number of correct answers. If the resulting grade is negative, the grade will be considered as zero.
- Students, who do not attend at least one of the in-term exams, are not admitted to the final exam and get VF.
- Letter grades are assigned in accordance with the guidelines set by the Senate.
- All course announcements and materials will be posted on both <https://fizik.itu.edu.tr> and the 'ninoval' system. It is the responsibility of students to regularly check these websites for updates.