



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



## PHYSICS 102E – 2022/2023 Fall

### TEXTBOOK:

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

### SUPPLEMENTARY TEXT:

1. D. C. Giancoli, Fen Bilimcileri ve Mühendislik için Fizik (Dördüncü Baskıdan Çeviri), Akademi (2009).
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	19 September 2022	Chapter 21	Electric Charge and Electric Field (21.1 – 21.7)
2	26 September 2022	Chapter 22	Gauss's Law (22.1 – 22.5)
3	3 October 2022	Chapter 22	Gauss's Law (22.1 – 22.5)
4	10 October 2022	Chapter 23	Electric Potential (23.1 – 23.5)
5	17 October 2022	Chapter 24	Capacitance and Dielectrics (24.1 – 24.4)
6	24 October 2022	Chapter 25	Current, Resistance and Electromotive force (25.1 – 25.5)
7	31 October 2022	Chapter 26	Direct-Current Circuits (26.1 – 26.5)
	7 November 2022		Semester Break
8	14 November 2022	Chapter 27	Magnetic Field and Magnetic Forces (27.1 – 27.7)
9	21 November 2022	Chapter 28	Sources of Magnetic Field - Biot Savart&Ampere's laws (28.1 – 28.7)
10	28 November 2022	Chapter 28	Sources of Magnetic Field - Biot Savart&Ampere's laws (28.1 – 28.7)
11	5 December 2022	Chapter 29	Electromagnetic Induction - Faraday's law (29.1 – 29.5, 29.7)
12	12 December 2022	Chapter 30	Inductance – Inductors (30.1 – 30.6)
13	19 December 2022	Chapter 32	Electromagnetic Waves (32.1 – 32.5)
14	26 December 2022	Chapter 32	Electromagnetic Waves (32.1 – 32.5)

### Exams:

1<sup>st</sup> Midterm : 22 October 2022, 13.00-15.00. Topics: Up to Chapter 23 (Chapter 23 included)

2<sup>nd</sup> Midterm : 3 December 2022, 13.00-15.00. Topics: Up to Chapter 27 (Chapter 27 included)

Final Exam : 2-15 January, 2023 (Exact date and time will be announced by the Student Administration Office.)  
(Includes all chapters).

### Letter Grade Weights:

Midterm 1 : 30%

Midterm 2 : 30%

Final : 40 %

### Attention

- The exams will be multiple choice. Exam grades will be calculated by subtracting one quarter of the number of wrong answers from the number of correct answers. If the exam grade is negative, the grade will be considered as zero.
- Students failing to score at least 25 % (i.e. 15 out of 60) on the in-term assessments (Midterm 1 and Midterm 2) will not be allowed to attend the final exam and will be graded VF.
- Please keep track of the web page of Physics Eng. Dept, not to miss any announcements.