



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



## PHYSICS 101E – 2021/2022 Summer

### TEXTBOOK:

H. D. Young and R. A. Freedman, University Physics with Modern Physics 12th Ed. Pearson (2008).  
or

H. D. Young and R. A. Freedman, University Physics with Modern Physics 14th Ed. Pearson (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	Chapter	Topics
04.07.2022	Chapter 1	Units, Physical Quantities, Vectors
	Chapter 2	1D Kinematics
	Chapter 3	2-D Kinematics
18.07.2022	Chapter 4	Newton's law of motion
	Chapter 5	Applications of Newton's laws; Friction and Circular motion
	Chapter 6	Work and Kinetic Energy
25.07.2022	Chapter 7	Potential Energy and Conservation of mechanical energy
	Chapter 8	Momentum, Impulse, and Collisions
	Chapter 8	Momentum, Impulse, and Collisions
01.08.2022	Chapter 9	Kinematics of Rotational Motion
	Chapters 9,10	Kinematics - Dynamics of Rotational Motion
	Chapters 10	Dynamics of Rotational Motion
08.08.2022	Chapter 12	Gravitation
	Chapter 13	Periodic Motion
		Review

### Exams:

Midterm : 4 August, 2022, 18:00-20:00 - covers Chapter 1 - Chapter 8 (inclusive).

Final Exam : Between 13 – 21 August, 2022 (the exact date and time will be announced by the Student Administration Office), covers all chapters.

### Letter Grade Weights:

Midterm : 50% Final : 50%

### In-term requirements:

You must get 25% of the credit from the in-term assessments, otherwise you will not be able to attend Final exam and fail the course with a VF grade. For this term this pass condition corresponds to 12.5/50 points from the midterm examination.

### Attendance:

You have to attend at least 70% of the lectures by university rules.

(See <https://www.sis.itu.edu.tr/TR/mevzuat/lisans-yonetmelik.php>; Article (Madde)23-(1).)

Follow all the announcements on the [Physics Eng. Dept. web page](#) and [Ninova course page](#) regarding FIZ102E.