

PHYS 1501 - Fundamentals of Physics 1

Fall 2026 Syllabus, Section 03, CRN 40375,

Credit hours: 4

Instructor

Ashley Skalsky

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Public Instructor Information

Instructor Title: Part-Time Faculty

Instructor Professional Qualifications:

M.S., Medical Physics, Cleveland State University, 2021

M.S., Astronomy, Swinburne University of Technology, 2011

B.S., Physics & Astronomy, Youngstown State University, 2009

Instructor Office Location: Ward Beecher 2000

Instructor Office Phone: 330-941-3616

Course Description

1501. Fundamentals of Physics 1. Topics include kinematics, forces, energy, momentum, rotational kinematics, torque, angular momentum, simple harmonic motion, and mechanical waves. Not recommended for mathematics, chemistry, physics, or engineering majors. Prereq.: C or better in both MATH 1510 and MATH 1511 or C or better in both MATH 1510C and MATH 1511C or C or better in MATH 1513 or at least level 70 on the Mathematics Placement Test. 4 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Physics	Giambattista	

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Mon	8/24	Chapter 1	Measurement & Estimating	
Wed	8/26	Chapter 2	Kinematics in One-Dimension	Chapter 1 Quiz (Beginning of Class)
Mon	8/31	Chapter 2	Kinematics in One-Dimension	
Wed	9/2	Chapter 3	Kinematics in Two-Dimensions	Chapter 2 Quiz (Beginning of Class)
Mon	9/7	No Class		
Wed	9/9	Chapter 3	Kinematics in Two-Dimensions	Chapter 3 Quiz (End of Class)
Mon	9/14	Chapter 4	Dynamics & Newton's Laws	Test #1: Chapters 1-3 Chapter 1 Homework: "Problems" from text - 12, 14, 20, 22, 26, 32, 44, 52 Chapter 2 Homework: "Problems" from text - 4, 20, 28, 32, 50, 52, 56, 60, 64 Chapter 3 Homework: "Problems" from text - 8, 12, 20, 24, 38, 54, 56, 58, 83
Wed	9/16	Chapter 4	Dynamics & Newton's Laws	

Mon	9/21	Chapter 4	Dynamics & Newton's Laws	
Wed	9/23	Chapter 5	Circular Motion & Gravity	Chapter 4 Quiz (Beginning of Class)
Mon	9/28	Chapter 5	Circular Motion & Gravity	
Wed	9/30	Chapter 5	Circular Motion & Gravity	Chapter 5 Quiz (Beginning of Class)
Mon	10/5	Chapter 6	Work & Energy	
Wed	10/7	Chapter 6	Work & Energy	Chapter 6 Quiz (End of Class)
Mon	10/12	Chapter 6	Work & Energy	
Wed	10/14	Chapter 7	Linear Momentum	Test #2: Chapters 4-6 Chapter 4 Homework: "Problems" from text - 6, 12, 24, 28, 36, 48, 68, 72, 92, 96, 108, 124 Chapter 5 Homework: "Problems" from text - 8, 14, 22, 26, 34, 36, 42, 44, 50, 54, 78 Chapter 6 Homework: "Problems" from text - 6, 10, 18, 34, 36, 48, 70, 76, 80, 88
Mon	10/19	Chapter 7	Linear Momentum	
Wed	10/21	Chapter 7	Linear Momentum	Chapter 7 Quiz (Beginning of Class)
Mon	10/26	Chapter 8	Rotational Motion	
Wed	10/28	Chapter 8	Rotational Motion	Chapter 8 Quiz (End of Class)
Mon	11/2	Chapter 9	Fluids	
Wed	11/4	Chapter 9	Fluids	Chapter 9 Quiz (End of Class)
Mon	11/9	Chapter 10	Elasticity & Oscillations	Test #3: Chapters 7-9 Chapter 7 Homework: "Problems" from text - 4, 16, 26, 28, 32, 36, 44, 48, 64 Chapter 8 Homework: "Problems" from text - 4, 18, 26, 28, 38, 50, 62, 64, 72, 74, 78, 98, 100 Chapter 9 Homework: "Problems" from text - 8, 10, 28, 34, 50, 56, 62, 98
Wed	11/11	No Class		
Mon	11/16	Chapter 10	Elasticity & Oscillations	
Wed	11/18	Chapter 11	Waves	Chapter 10 Quiz (Beginning of Class)
Mon	11/23	Chapter 11	Waves	Chapter 11 Quiz (End of Class)
Wed	11/25	No Class		
Mon	11/30	Chapter 12	Sound	
Wed	12/2	Chapter 12	Sound	Chapter 12 Quiz (End of Class)
Mon	12/7			Final Exam: All Chapters (5:30pm - 7:30pm) Chapter 10 Homework: "Problems" from text - 2, 8, 16, 22, 26, 42, 48, 64, 70, 90 Chapter 11 Homework: "Problems" from text - 2, 10, 18, 24, 26, 66, 88 Chapter 12 Homework: "Problems" from text - 2, 10, 14, 16, 20, 24, 34, 42, 48, 60
Wed	12/9	No Class		

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.