

PHYS 1501 - Fundamentals of Physics 1

Fall 2026 Syllabus, Section 02, CRN 40373,

Credit hours: 4

Instructor

Katherine Durrell

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Public Instructor Information

Instructor Title: Part-Time Faculty in Physics and Astronomy

Instructor Professional Qualifications: *MSc., Astronomy, University of Toronto (1994), BSc. (with honors), Physics, University of New Brunswick (1993), YSU Teaching Excellence Award (2018)*

Instructor Office Location: *Ward Beecher 2031*

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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, 5th Edition	Alan Giambattista	978-1-260-48691-9

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

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Chapters 1,2	Introduction, Measurement, & Estimating	Introduction to Connect, Significant Figures and Tolerance and Chapter 1 SmartBook assignment due Friday, Aug. 28 lmslms_1791918_1 lmslms_1791920_1
8/31	Chapters 2 & 3	1-D and 2-D Kinematics	See Blackboard for assignment due dates lmslms_1791921_1 lmslms_1791922_1
9/7	Chapter 3	2-D Kinematics	See Blackboard for assignment due dates
9/14	Chapter 3	2-D Kinematics	Test 1 Wednesday, Sept. 16 See Blackboard for assignment due dates
9/21	Chapter 4	Newton's Laws of Motion	See Blackboard for assignment due dates
9/28	Chapters 4 & 5	Newton's Laws of Motion Circular Motion and Gravitation	See Blackboard for assignment due dates
10/5	Chapter 5	Circular Motion and Gravitation	See Blackboard for assignment due dates
10/12	Chapter 6	Work and Energy	Test 2 Wednesday, Oct. 14 See Blackboard for assignment due dates
10/19	Chapters 6 & 7	Work and Energy Linear Momentum	See Blackboard for assignment due dates

10/26	Chapter 7	Linear Momentum	See Blackboard for assignment due dates
11/2	Chapter 8	Rotational Motion	Test 3 Friday, Nov. 6 See Blackboard for assignment due dates
11/9	Chapter 9	Fluids	See Blackboard for assignment due dates
11/16	Chapter 9 & 10	Fluids Elasticity & Oscillations	See Blackboard for assignment due dates
11/23	Chapter 11	Oscillations and Waves	See Blackboard for assignment due dates
11/30	Chapter 12	Sound	See Blackboard for assignment due dates
12/7	Final Exam Friday, Dec. 11, 10:30a, - 12:30pm	All material in the course	Final Exam Friday, Dec. 11, 10:30a, - 12:30pm

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.