

Phy 101 Syllabus- Fall 2017

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Lecture: Tue 2.30 pm – 5.20 pm and Lab: Thu 2.30 pm – 5.20pm

Textbooks

- [Conceptual Physics](#), Paul Hewitt, 12 Ed.

Laboratory Safety Rules

- Only students officially enrolled in the class are allowed in the physics laboratory.
- Open-toe shoes such as sandals and flip-flops are prohibited in the laboratory. All shoes must provide adequate foot protection.
- All students must be acquainted and abide by the safety rules as published on [the Physics Laboratory Webpage](#).
- Students in violation of the safety rules will be asked to leave the laboratory.

Disability Accommodations

No disability accommodations will be provided unless a Disability Data Sheet is provided to the instructor. Those seeking accommodations based on disabilities should obtain a Disability Data Sheet through [the Counselor for Special Needs](#).

Grading Policies

Grading Scale: A: 90% or above; B: 80 - 89%; C: 70-79%; D: 60- 69%

Course Grade Total of 100 points.

The course grade is comprised of Laboratory (15%), Homework (15%), Exams (60%), and Projects (10%).

Lab Grade Total 15 pts.

All lab experiments are worth 1 pt each. Students who are late for lab by more than 30 minutes, may still do the lab but will receive no credit for that experiment.

For students who have missed a lab, there will be one extra lab experiment assigned at the end of the semester to make up for any missed lab work. There will be no other lab make-ups.

Homework Total 15 pts.

The homework will be in the form of weekly online quizzes due 11:59 pm on the night before we meet in class. Students should make effort to do the homework on a regular basis as the homework reflects the material covered in class and is the best practice for the exams.

No late quizzes will be accepted. For students who have missed a quiz or problems on a quiz, there will be approximately 15 - 20 extra quiz problems already incorporated in the regular quizzes to make up for the missed grade.

Exams Total 60 pts.

There will five exams each worth 15 pts. The lowest grade exam will be dropped from the course grade. The remaining four exam grades will count towards the total exam grade. The exams will be a mix of multiple choice and essay questions and will reflect the work done in class, both in laboratory and lecture, and the homework problems.

A formula sheet will be provided by the instructor on exam day.

There will be no make-up exams, regardless of the circumstances.

Projects Total 10 pts.

The instructor will assign various individual or collaborative student projects throughout the semester. More details will be given as the course progresses.

Course Outline

Total course divided into 5 modules

Module 1: Motion and Forces

Module 2: Momentum, Energy and Rotation

Module 3: Matter, solids and liquid

Module 4: Gases and Heat

Module 5 : Vibrations, waves and Sound

Online Quizzes	Lecture (AA-0441)	Lab (AA 385)
Module 1: Motion and Forces		
	Lec. 1 About Science; Algebra Review	Lab 01: Intro and Safety
	Lec. 2: Newton's First Law	Lab 02: Force Table
Online Quiz: Newton's First Law		
	Lec. 3: Linear Motion	Lab 03: Uniform Acceleration
	Lec. 4: Newton's Second Law	
Online Quiz: Linear Motion Online Quiz: Newton's Second Law		
	Lec. 5: Newton's Third Law	Lab 04: Measuring g
Online Quiz: Newton's Third Law		
Exam 1: Motion and Forces		
Module 2: Energy, Momentum and Rotation		
	Lec. 6: Energy	
Online Quiz: Energy		
	Lec. 7 Momentum	
Online Quiz: Momentum		Lab 05: Torque
	Lec. 8: Rotation	
Online Quiz: Rotation		Lab 06: Collisions I Lab 07: Collisions II
Exam 2: Energy, Momentum and rotation		
Module 3: Matter, Solids and Liquids		
	Lec. 9: Atomic Nature	
	Lec. 10: Solids	
Online Quiz: Atomic Nature Online Quiz: Solids		Lab 08: Springs I
	Lec. 11: Liquids (Fluids 1)	Lab 09: Density Lab 10: Buoyancy
Online Quiz: Liquids(Fluids 1)		
	Lec. 12: Liquids (Fluids 2)	
Online Quiz: Liquid (Fluids 2)		
Exam 3: Matter, Solid and Liquid		
Module 4: Gases and Heat		
	Lec. 13: Temperature, Heat and Gas law	

Online Quiz: Temperature, Heat and Gas law

Lec. 14: Heat Transfer and Thermal Expansion

Lab 11: Boyle's Law

Online Quiz: Heat Transfer and Thermal Expansion

Lec. 15: Thermodynamics

Lab 12: Specific Heat

Online Quiz: Thermodynamics

Exam 4: Gases and Heat

Module 5: Vibrations, Waves & Sound

Lec 16: Vibrations

Lab 13: Springs II

Online Quiz: Vibrations

Lec. 17 : Waves

Online Quiz: Waves

Lec. 18: Sound

Lab 14: Standing Waves

Online Quiz: Sound

Lab 15: Simple Pendulum

Exam 5: Vibrations, Waves and Sound
