



CAMPBELLSVILLE UNIVERSITY

COURSE SYLLABUS

PLEASE TYPE.

DATE February 9, 2017

ACADEMIC UNIT

Natural Science

FACULTY

Steven Alston

Please check to indicate this course has a service learning component.

Discipline	Course# Section	Title of Course	Credit Hours	Cross Reference (if applicable)
PHY	141-01	General College Physics I	3	

TEXTBOOK

Required

Not Required

Author Serway & Vuille

Title College Physics, 10th Edition

Publisher _____

Date of Publication _____

WORKBOOK

Author _____

Title _____

Publisher _____

Date of Publication _____

PLEASE ANSWER THE FOLLOWING QUESTIONS ON A SEPARATE SHEET OF PAPER AND ATTACH TO THIS FORM.

- DESCRIPTION OF COURSE: Develop a brief description of the course as it will appear in the Catalog.
- STUDENT LEARNING OBJECTIVES: List the student learning objectives for the course. Please relate these objectives to the mission and goals of the University and the Academic Unit. For general education courses, please indicate which student learning objectives address general education goals and the intended method of assessment. A minimum of four of the seven general education goals must be included.

Example: Students will demonstrate their ability to compare and contrast two types of basket weaving. (Goal: Oral and Written Communication; Evidence: research paper and class presentation)
- COURSE OUTLINE: Outline the topics/units that are to be taught.
- EVALUATION: How do you plan to determine the grade in the course? Please include grading scale.
- REQUIREMENTS:
 - Examinations: State when tests are to be administered, including unit, mid-term, and final examinations.
 - Reports: How many, length required, and what type (Oral, term and/or research, book critiques).
 - Supplemental reading assignments or outside work required.
 - Supplemental instruction aids: Audio visual aids, field trips, guest speakers, etc.
- BOOKLIST

DEAN

Date Copy Received _____

VICE PRESIDENT FOR ACADEMIC AFFAIRS

Date Copy Received _____

PHY 141 – General College Physics I

Spring 2017, MWF 8:00-8:50 am

Instructor:	Dr. Steve Alston, CH 302 or SSC 218A, ext. 5250 or 5062, salston@campbellsville.edu
Course Description:	The first half of an introductory algebra-based survey of physics covering vectors, description and dynamics of linear and rotational motion, work and energy, momentum, fluids, mechanical oscillations and waves, heat, and thermodynamics. Prerequisites: MTH 111, 112
Textbook:	<i>College Physics</i> , 10 th Ed., Serway and Vuille
Attendance:	Required; recorded; CU policy allows 11 absences; tardiness/early-exit may be absences
Division of credit:	Homework/quizzes (20%), Exams (3 at 20% each), Final Exam (20%); makeup exams only by prior arrangement with instructor, otherwise 10% off
Grading:	Grade based on overall numerical average: A (89+), B (78+), C (67+), D (55+)
Academic dishonesty:	Any attempt to gain an unfair advantage on an exam will result in it being voided; academic integrity issues follow the Natural Science Division's policy (see online)
Office hours:	MTWF 900-10:00 am; MWRF 1:00-2:00 pm; by appointment

Learning objectives:

- 1) To develop a conceptual understanding of mechanics, thermodynamics, and mechanical waves in class;
- 2) To build an algebra-based, quantitative understanding of the above topics through numerical calculations;
- 3) To accumulate an introductory knowledge of the above topics, as demonstrated on exams;
- 4) To learn and practice problem-solving skills by writing solutions to problems on the above topics;
- 5) To develop an aesthetic appreciation of the natural world and rational explanations of it.

Campus Security can be reached anytime (270-789-5555, office; 270-403-3611, cell) for any security issues.

Title IX: Campbellsville University and its faculty are committed to assuring a safe and productive educational environment for all students. To meet this commitment and to comply with Title IX of the Education Amendments of 1972 with guidance from the Office for Civil Rights, CU requires all responsible employees, including faculty members, to report incidents of sexual misconduct that are shared by students to the University's Title IX Coordinator, Terry VanMeter (1 University Dr., UPO 944, Admin. Office 8A, 270-789-5016, twvanmeter@campbellsville.edu). Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: www.campbellsville.edu/titleIX.

Disability Services: Campbellsville University is committed to providing reasonable accommodations for students who have documented physical and learning disabilities or medical or emotional conditions. If you have a documented disability or condition of this nature, you may be eligible for disability services. Documentation must be from a licensed professional and current in terms of assessment. Please contact the Coordinator of Disability Services at 270-789-5192 to inquire about services.

Projected chapter and section coverage:

Wed., Jan. 18	Units, estimates (Ch.Sect: 1.1-7, 1.9)	Wed., Mar. 8	Rotational dynamics (8.5)
Fri., Jan. 20	Motion in one dimension (2.1-4)	Fri., Mar. 10	Rotational energy/momentum (8.6-7)
Mon., Jan. 23	Equations of motion (2.5)	Mon., Mar. 20	Solids and deformation (9.1-3)
Wed., Jan. 25	Motion in free fall (2.6)	Wed., Mar. 22	Fluids at rest (9.4-6)
Fri., Jan. 27	Vectors, components (3.1-2)	Fri., Mar. 24	Fluids in motion (9.7-10)
Mon., Jan. 30	Vector addition (3.3)	Mon., Mar. 27	Exam 2 (Ch. 6-9)
Wed., Feb. 1	Motion in two dimensions (3.4)	Wed., Mar. 29	Temperature, expansion (10.1-3)
Fri., Feb. 3	Concepts of force, mass (4.1)	Fri., Mar. 31	Ideal gas (10.4)
Mon., Feb. 6	Laws of motion (4.2-4)	Mon., Apr. 3	Kinetic theory of gases (10.5)
Wed., Feb. 8	Applications (4.5-6)	Wed., Apr. 5	Heat content (11.1-3)
Fri., Feb. 10	Concept of work (5.1)	Fri., Apr. 7	Heat transfer (11.4-6)
Mon., Feb. 13	Kinetic/potential energy (5.2-4)	Mon., Apr. 10	1 st Law of Thermodynamics (12.1-2)
Wed., Feb. 15	Energy conservation, power (5.5-7)	Wed., Apr. 12	Thermal processes (12.3)
Fri., Feb. 17	Exam 1 (Ch. 2-5)	Wed., Apr. 19	Heat engines, 2 nd Law (12.4)
Mon., Feb. 20	Momentum, collisions (6.1-2)	Fri, Apr. 21	Entropy (12.5-6)
Wed., Feb. 22	Conservation, propulsion (6.3-4)	Mon., Apr. 24	Motion that repeats (13.1-4)
Fri., Feb. 24	Rotational motion (7.1-2, 4)	Wed., Apr. 26	Examples, damped motion (13.5-6)
Mon., Feb. 27	Linear-rotation connection (7.3)	Fri., Apr. 28	Concept of waves (13.7-9, 13.11)
Wed., Mar. 1	Law of Gravitation (7.5-6)	Mon., May 1	Exam 3 (Ch. 10-13)
Fri., Mar. 3	Torque and equilibrium (8.1-2)	Wed., May 3	Sound waves, intensity (14.1-4)
Mon., Mar. 6	Examples, center of gravity (8.3-4)	Fri., May 5	Doppler Effect, Interference (14.5-11)