

PHY 131 -- Conceptual Physics

Spring, 2011, MWF 9:00-9:50 am

Instructor: Dr. Steve Alston, CH 310, 270-789-5250 (office)
Email: salston@campbellsville.edu
Textbook: *Physics: Concepts and Connections*, 5e, Art Hobson
Attendance: required; recorded, 6 excused absences; tardiness or early exit may be an absence
Credit division: participation and quizzes (10%), 3 exams (20% each), Final exam (30%)
Grading: A (89+), B (78+), C (67+), D (55+), with consideration of class average
Academic dishonesty: An exam will be voided by any attempt to gain an unfair advantage; the Division of Natural Science Academic Integrity Policy will be followed (see online)
Office hours: MF 10:00-12:00; T 9:30-11:30; W 11:00-12:00, 1:00-2:00; or by appointment

Learning objectives (as assessed by quizzes and exams given during the course):

- 1) To foster an interest in and appreciation for the physical world;
- 2) To develop a conceptual understanding of how the physical world works;
- 3) To gain a semi-quantitative knowledge of the same using proportionalities and ratios;
- 4) To learn about the observational aspects (experimental foundation) of physics,
- 5) To understand the scientific method and how science develops by means of the scientific process,
- 6) To learn about the historical development and diversity of rational views of the world;
- 7) To be able to relate physics, in particular, and science and technology, in general, to society.
- 8) To demonstrate integrity in taking exams in a challenging subject area.

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

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 class coverage:

Wed., Jan. 19	Introduction	Fri., Mar. 11	Ch. 10 cont.
Fri., Jan. 21	Ch. 1: Science	Mon., Mar. 14	Exam 2 Review
Mon., Jan. 24	Ch. 1 cont.	Wed., Mar. 16	Exam 2 (Ch. 6-10)
Wed., Jan. 26	Ch. 2: Atoms	Fri., Mar. 18	Ch. 11: Gravity
Fri., Jan. 28	Ch. 2 cont.	Mon.-Fri., Mar. 21-25	Spring Break
Mon., Jan. 30	Ch. 3: Motion	Mon., Mar. 28	Ch. 11 cont.
Wed., Feb. 2	Ch. 3 cont.	Wed., Mar. 30	Ch. 12: Quantum Idea
Fri., Feb. 4	Ch. 4: Forces	Fri., Apr. 1	Ch. 12 cont.
Mon., Feb. 7	Ch. 4 cont.	Mon., Apr. 4	Ch. 13: Quantum World
Wed., Feb. 9	Ch. 5: Universe	Wed., Apr. 6	Ch. 13 cont.
Fri., Feb. 11	Ch. 5 cont.	Fri., Apr. 8	Ch. 14: Nucleus
Mon., Feb. 14	Exam 1 Review	Mon., Apr. 11	Ch. 14 cont.
Wed., Feb. 16	Exam 1 (Ch. 1-5)	Wed., Apr. 13	Ch. 15: Fission/Fusion
		Fri., Apr. 15	Ch. 15 cont.
Fri., Feb. 18	Ch. 6: Energy	Mon., Apr. 18	Sect. 16.3
Mon., Feb. 21	Ch. 6 cont.	Wed., Apr. 20	Recent ideas
Wed., Feb. 23	Ch. 7: Heat	Fri., Mon., Apr. 22, 25	Easter Holiday
Fri., Feb. 25	Ch. 7 cont.	Wed., Apr. 27	Exam 3 Review
Mon., Feb. 28	Ch. 8: Light	Fri., Apr. 29	Exam 3 (Ch. 11-16)
Wed., Mar. 2	Ch. 8 cont.		
Fri., Mar. 4	Ch. 9: Radiation	Mon., May 2	Ch. 17: Quantum Fields
Mon., Mar. 7	Ch. 9 cont.	Wed., May 4	Ch. 17 cont.
Wed., Mar. 9	Ch. 10: Relativity	Fri., May 6	Final review