

JCC OFFICIAL COURSE OUTLINE

Course number, title and credits; total time allocation

Course Letter/Number	PHY 131	Credits	4	Title	Conceptual Physics
Lecture/Discussion	45	hrs/semester	Lab	30	hrs/semester
				er	Clinical
					hrs/semester

Catalog Description and Pre- and Co-requisites (Same as taxonomy and catalog)

CATALOG DESCRIPTION: Become familiar with basic concepts used in physics to describe and explain various physical phenomena. The course covers the following topics: kinematics (the description of motion); mechanics (the study of force, momentum, and energy); the behavior of solids, liquids and gases; temperature and heat; waves and sound; electricity and magnetism; and optics. The course is designed to familiarize the student with the basics of physics using a minimum of mathematics. Course includes a laboratory component.

PRE-REQUISITES: ENG 085/MAT 098

Knowledge, Skills and Abilities Students Acquire from this Course (Educational Objectives)

- Familiarity with basic concepts in physics.
- Familiarity with basic scientific reasoning.
- Ability to apply these concepts and scientific reasoning to various types of situations.
- Ability to perform low-level algebraic computation.
- Ability to take and analyze data in a laboratory setting.

Associate Degree Outcomes Addressed in this Course (These must appear in course syllabus.)

ADO 4 (Scientific Reasoning), ADO 7 (Critical Thinking). As this is an introductory course, each of these is dealt with at the "developing" level.

Units/topics of Instruction

As listed in catalog description above, and (in more detail) in the syllabus for the course.

Instructional Techniques and Procedures

Discussion; group work in class involving problem solving; group work in laboratory component involving gathering and analyzing data.

Instructional Use of Computer or Other Technology

Computers used in data acquisition and processing in the laboratory component of the course.

Instructional Materials and Costs to Students

Students require a textbook. As of 11/15/11, cost of textbook at the JCC bookstore is \$179 new, and \$134 used. The book is available more cheaply on the internet. Also, there is a course fee that is currently set at \$47.

Skills and abilities students should bring to the course

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The course is usually scheduled

Day: Fall Winter Spring

Evening: Fall Winter Spring

Prepared by _____

Date _____

Approved by Dept. _____

Date _____

Approved by Dean _____

Date _____

Approved by Curr. Comm. _____

Date _____

(Last names, please)

Form Revised 12/4/00