

**COLLIN COUNTY COMMUNITY COLLEGE DISTRICT**  
**COURSE SYLLABUS - Lecture**

**COURSE NUMBER:** PHYS 2425

**COURSE TITLE:** University Physics I

**CREDIT HRS:** 4      **LECTURE HRS:** 3      **LAB HRS:** 3

**PREREQUISITE:** MATH 2413 within the last five years with a C or better

**COREQUISITE:** MATH 2414, PHYS 2425 Lab

**COURSE DESCRIPTION:**

A calculus-based analysis of classical physics for science majors in fields such as physics, computer science and engineering. Includes laws of motion, force, momentum, work and energy, angular momentum, and rotational and oscillatory motion. Laboratory required.

**MEASURABLE STUDENT LEARNING OUTCOMES:**

Upon successful completion of this course, the student will be able to:

1. Use the basic SI units of measurement in problem solving
2. Solve problems involving the theoretical derivation of relationships and equations using calculus
3. Solve problems in kinematics and dynamics
4. Apply vector analysis to appropriate problems
5. Analyze and solve problems involving energy and work
6. Analyze and solve problems using the concepts of momentum and collisions
7. Solve problems involving the basic principles of fluid dynamics
8. Solve problems involving heat and the laws of thermodynamics
9. Explain and utilize the concepts of wave motion and sound
10. Demonstrate the proper collection, analysis, and reporting of scientific data

**COURSE REQUIREMENTS:**

Complete lecture and lab activities

**COLLEGE REPEAT POLICY:**

A student may repeat this course only once after receiving a grade, including “W.”

**ATTENDANCE POLICY:**

May vary by instructor. See the current *Collin Registration Guide* for the last day to withdraw.

**RELIGIOUS HOLY DAYS:**

Please refer to the current *Collin Student Handbook*.

**ADA STATEMENT:**

It is the policy of Collin County Community College to provide reasonable and appropriate accommodations for individuals with documented disabilities. This College will adhere to all applicable Federal and State laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS Office (G-200) or 972.881.5898, (TDD- 972.881.5950) in a timely manner if he/she desires to arrange for accommodations.

**ACADEMIC ETHICS:**

The college may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission of material as one’s own work that is not one’s own. Scholastic dishonesty may involve one or more of the following acts: cheating, plagiarism, collusion, and/or falsifying academic records.

**CHEATING:**

Is willful giving or receiving of information in an unauthorized manner during an examination, illicitly obtaining examination questions in advance, using someone else’s work for assignments as if it were one’s own, copying computer disks or files, and any other dishonest means of attempting to fulfill the requirements of a course.

**PLAGIARISM:**

Is the use of an author’s words or ideas as if they were one’s own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation. Contact the Dean of Students at 972.881.5771, for the student disciplinary process and procedures or consult the CCCCD Student Handbook.

**COLLUSION:**

Is intentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate during an examination; removing tests or answers from a test site, and allowing a classmate to copy answers.