

**COLLIN COUNTY COMMUNITY COLLEGE DISTRICT  
COURSE SYLLABUS**

**Course Number:** PHYS 1402 Lecture

**Course Title:** General Physics 1402

**Course Credit Hours:** 4                      **Lecture Hours:** 3                      **Lab Hours:** 3

**Prerequisite:** PHYS 1401 within the last five years with a “C” or better. A course that included trigonometry is highly recommended.

**Corequisite:** none

**Course Delivery Method:** Lecture. Instructional use of the whiteboard, overhead projector, the internet, videos, and student presentations. Students are encouraged to keep complete class notes.

**Instructor’s Information:**

**Instructor’s Name:** M. L. Broyles

**Office Number:** J139

**Office Hours:** See syllabus addendum.

**Contact Information:** Dr. Fred Jury: Department Chair. 972-881-5883

Dr. Cameron Neal: Dean of Math and Science: 972-881-5880

**Class Information:** Refer to syllabus addendum

**Class Meeting Times:**

**Class Meeting Location:**

**Textbook:** Refer to syllabus addendum

**Supplies:** Refer to syllabus addendum

**Measurable Student Learning Outcomes:**

Upon successful completion of this course, students should be able to do the following:

1. Apply the concepts of static electrical charge to problems involving Coulomb’s Law and electric fields.
2. Solve problems involving the concepts of electrical potential energy, electrical potential difference, and potential.
3. Apply the concepts of capacitance and electrical power by solving problems.
4. Solve problems utilizing Ohm’s laws in electrical circuits.
5. Apply Kirchhoff’s laws to electrical circuits.
6. Apply the concepts of magnetism and electromagnetism to electrical circuits.

7. Solve problems using the principles of alternating current.
8. Understand and apply the principles of geometric optics.
9. Explain and apply the concepts pertaining to optical instruments.
10. Develop an understanding the various applications of modern physics including: relativity, quantum theory, quantum mechanics, nuclear structure, radioactivity, and fission and fusion.

**Course Requirements:**

Complete the lecture and lab activities as defined in the lecture and lab addenda.

**Attendance Policy:**

Regular laboratory attendance is required of all students; excused absences, including illnesses, should be cleared with the instructor. Please see the Registration Guide for the last day to withdraw. Religious Holy Days: refer to the current Collin Student Handbook.

**ADA Statement:**

It is the policy of Collin County Community College to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal and state and local 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, SCC-G200 or 972.881.5898, (V/TTD: 972.881.5950) in a timely manner to arrange for appropriate accommodations.

**Academic Ethics:**

The College District 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 as one's own work material that is not one's own. Scholastic dishonesty may involve, but is not limited to, one or more of the following acts: cheating, plagiarism, collusion, use of annotated texts or teacher's editions, and/or falsifying academic records.

**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.

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

**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 answer sheets from a test site, and allowing a classmate to copy answers.

**Tentative Course Calendar:** (*See the lecture addendum*)

NOTE: A copy of the generic/departmental syllabus is available on the college website at:

<http://iws.ccccd.edu/syllabus>