

I. COURSE DESCRIPTION:

This course introduces the student to a number of fundamental concepts of technical physics. It is designed to satisfy the needs of students who are interested in an overview of the concepts rather than a rigorous mathematical analysis of the topics as might be encountered in a traditional engineering level course in physics. The included topics relate to the trades and technology fields of study.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. In his/he own words, write basic definitions for the concepts introduced. The definition will demonstrate a fundamental understanding of the concept.
2. Answer questions requiring an understanding of the concepts presented.
3. Respond to questions requiring some extrapolation of the course content.
4. Solve basic mathematical problems requiring an essential understanding of the course theory.
5. Develop an appreciation for physics as a science and its broad impact on the world as we now know it. This impact includes both the technological applications that are a result of the science and a fundamental understanding of our universe made possible by the science.

III. TOPICS:

1. Measurement and The Metric System
2. Motion
3. Forces, Work, Energy, Power and Simple Machines
4. Properties of Matter: Solids, Liquids and Gases
5. Basic Electricity
6. Temperature and Heat

Note: Coverage of topics 5 & 6 would depend on the availability of time.

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

No text is required for this course. Your instructor will provide you with printed material, electronic material, and/or assign reference sites/work for the student to work from.

Scientific Calculator

Mathematical (measurement) instruments (e.g. ruler, compass, protractor)

V. EVALUATION PROCESS/GRADING SYSTEM:

Your final grade in PHY117 will be determined on the basis of a number of quizzes and/or tests to be administered during the semester, combined with the results of your laboratory experiment reports. Note that quizzes are intended to track your understanding of the materials presented. Quizzes can be administered at any time without prior class notification. The final mark will be awarded based on the composite score of lab, quiz, and test scores as follows:

| | |
|-----------------|-----|
| Quizzes & Tests | 60% |
| Lab Work | 40% |

The following semester grades will be assigned to students:

| Grade | <u>Definition</u> | <i>Grade Point Equivalent</i> |
|--------------|--|--------------------------------------|
| A+ | 90 – 100% | 4.00 |
| A | 80 – 89% | 3.00 |
| B | 70 - 79% | 2.00 |
| C | 60 - 69% | 1.00 |
| D | 50 – 59% | 0.00 |
| F (Fail) | 49% and below | |
| CR (Credit) | Credit for diploma requirements has been awarded. | |
| S | Satisfactory achievement in field /clinical placement or non-graded subject area. | |
| U | Unsatisfactory achievement in field/clinical placement or non-graded subject area. | |
| X | A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. | |

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| NR | Grade not reported to Registrar's office. |
| W | Student has withdrawn from the course without academic penalty. |

VI. SPECIAL NOTES:

Disability Services:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 703 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.