

LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:

This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):

Please check with the LCC bookstore <http://www.labette.edu/bookstore> for the required texts for this class.

<u>COURSE NUMBER:</u>	PHYS 203
<u>COURSE TITLE:</u>	ENGINEERING PHYSICS I
<u>SEMESTER CREDIT HOUR:</u>	5
<u>DEPARTMENT:</u>	Physics or Engineering
<u>DIVISION:</u>	General Education
<u>PREREQUISITE:</u>	Concurrent enrollment or completion of MATH 130 Calculus I

COURSE DESCRIPTION:

The topics covered are the same as PHYS 201 College Physics I. However, all topics are covered using concepts and mathematical tools of calculus.

COURSE OUTCOMES AND COMPETENCIES:

Students who successfully complete this course will be able to:

1. The student will be able to show concept knowledge by application in problem solving.

- Solve problems on counting, and measuring.
- Solve problems on the mechanics of motion.
- Solve problems on the mechanical and thermal properties of matter.
- Analyze a physical system and formulate a hypothesis as to the behavior of the system.

2. The student will be able to formulate problems using the tools of mathematics.

- Apply algebra and trigonometry in applications and problems in physics.
- Apply integration and differentiation methods to problems in physics.
- Demonstrate the ability to communicate ideas and facts using equations, graphs and other symbolic tools used in science.
- Give the correct derived unit that result from a mathematical calculation involving measured numbers having units.

3. The student will be able to apply the scientific method in lab work settings.

- Conduct experiments, and collect data (observation).
- Analyze data collected.
- Draw a conclusion out of the lab performed.

4. The student will be able to analyze experimental error in lab work, and relate it to lab measurement.

- Calculate mean value, standard deviation, and percentage error for data collected.
- Measure the accuracy and precision of data collected.
- State the source of error in his/her measurements.