

SUFFOLK COUNTY COMMUNITY COLLEGE

ABBREVIATED COLLEGE COURSE SYLLABUS FORM

A course syllabus is not the same as a course outline. A course syllabus outlines the general requirements for a course. A course outline is the specific document created by the individual faculty member to distribute to a specific course section. This is an "abbreviated" course syllabus because it is only collecting information on the course number, title, description, and learning outcomes. Please submit this completed form electronically to Dean Britton.

PLEASE NOTE: Any changes made to the Course Number, Title, or Catalog Description must go through the regular faculty governance process. This Expedited Process of Approval, which expires in March 2012, only pertains to approval of the Learning Outcomes. Therefore, this is NOT the form to be used to change course numbers, titles, or descriptions. This is NOT the form to use for proposing a new course. (See the Governance website for those types of proposals.)

- I. Course Number and Title:** PHY102 College Physics 2
- II. Catalog Description:** Continuation of college physics sequence for liberal arts, life science and physical therapy majors designed to acquaint students with basic concepts of physics. Topics covered include mechanics, sound, light, heat and electricity. (3 hrs. lecture, 3 hrs. laboratory.) Prerequisite: PHY101. *Note: Fulfills SUNY General Education Requirement for Natural Sciences.*
- III. *Learning Outcomes:** *(Main concepts, principles, and skills you want students to learn from this course) The Learning Outcomes listed here should be considered the minimum core outcomes for the course. Many other learning outcomes may also be a part of the learning experience within the course.*
- Upon completion of this course, students will be able to:**
- A.** Solve word problems in the areas of thermodynamics, phase change, heat and mechanical work, electrostatics, D.C. circuits, capacitors, resistors, the effect of electric and magnetic fields on charged particles and currents, and optics.
 - B.** Identify the properties of waves such as amplitude, length, frequency and period.
 - C.** Distinguish between longitudinal and transverse waves and give examples of each.

*These statements must appear verbatim in course outlines. However, additional outcomes may be added to individual course outlines at the instructor's discretion.

- D. Apply the concepts of wave theory to the electromagnetic waves and the light spectrum.
- E. Identify the properties of electricity such as resistance, voltage and current.
- F. Analyze elementary DC circuits using Ohm's and Kirchhoff's Laws.
- G. Distinguish between alternating current (AC) and direct current (DC).
- H. Solve problems involving magnetic induction, Faraday's Law, Gauss's Law and Lenz's Law.
- I. Identify the properties of sound and explain how mechanical energy (such as sound) is transformed into thermal energy (heat).
- J. Analyze the optics of lenses and spherical mirrors.
- K. Analyze lens systems using the lens equation and the Lens Makers formula.
- L. Utilize Snell's law and the Law of Refraction to solve problems in ray optics.
- M. Apply critical thinking skills in analyzing multi-step word problems and formulating solutions.
- N. Work in a technical setting such as a laboratory and be able to present findings in a coherent report.

Name of Discipline Lead: **Glenda Denicoló**

Discipline Vote:

For **3** Against **0** Abstention **0**

Date of Vote: **03/02/2010**

__(Initial and Date)_____ Certification of Vote by AVP of Academic Affairs

__(Initial and Date)_____ Certification of Vote by College Curriculum Chair

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