

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Technical Physics II

Course Abbreviation and Number: PHY 1260

Credit Hours: 4

Course Type: Lecture/Lab

Course Description: Students will continue their investigation into physical phenomenon by focusing on electric and magnetic interactions and the structure of matter. They will study electrostatics, DC circuits, specific electrical components (such as DC motors and generators), and magnetism. Students will also study applications of these concepts in various fields of manufacturing.

Prerequisite: PHY 1250 or PHY 1610.

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Solve problems involving charged particles, electrostatic forces, and electric fields.
 2. Solve for properties of DC circuits including resistance, voltage, and power.
 3. Demonstrate understanding of electrical circuits and components by troubleshooting circuits.
 4. Demonstrate understanding of magnetism, magnetic fields, and electromagnetic induction.
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Topics Covered:

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|------------------------------|-----------------------------|----------------|
| • Waves | • DC circuits | • Lenses |
| • Sound | • Magnetism | • Polarization |
| • Charge and Electric forces | • Magnetic fields | • Diffraction |
| • Electric fields | • Electromagnetic induction | • Intensity |
| • Voltages | • Optics | • Illumination |
| • Resistors | • Reflection | |
| • Electrical power | • Refraction | |
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Information for Students

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)
 - [Academic Integrity Statement](#)
 - [Accessibility Services](#)
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
 - [Get Help: JCC & Community Resources](#)
 - [Emergency Closing Procedures](#)
 - Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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 - Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.
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Effective Date: Fall 2021