



MONROE COUNTY
COMMUNITY COLLEGE

Course Outcome Summary

Standard Course

Physics 252 – Engineering Physics II

Course Information

Division	Science/Mathematics
Contact Hours	7
Theory	4
Lab Hours	3
Total Credits	5

Prerequisites PHY 251. MATH 251 and MATH 273 are highly recommended.

Course Description

This course is a continuation of PHY 251 and is designed to satisfy the requirements of engineering and physics majors. Topics include temperature and heat, electricity and magnetism, electromagnetic waves, optics and quantum, atomic, and nuclear physics. This course requires laboratory work.

Course Outcomes

In order to evidence success in this course, students will be able to:

1. Discuss the three laws of thermodynamics including the kinetic energy of gases, heat engines and entropy.
2. Calculate electric forces, fields, potentials and capacitances.
3. Describe magnetic forces and fields including Ampere's and Faraday's laws.
4. Analyze DC and AC circuits.
5. Discuss Maxwell's equation and the production of electromagnetic waves.
6. Describe the nature and properties of light and the principle of geometric and wave optics.
7. Outline basic concepts and applications of quantum mechanics and atomic and nuclear physics.

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