



# Wayne County Community College District

## COURSE SYLLABUS

### PHY 235 General Physics I

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**CREDIT HOURS:** 4.00

**CONTACT HOURS:** 60.00

**COURSE DESCRIPTION:**

This non-calculus based physics course and it is designed partially to fulfill the physics requirement in pre-medicine, pre-dentistry, pharmacy, electronics, teaching and law. The sequence PHY 235 and PHY 245 is not intended for engineering students. (Meets for six hours - four hours lecture, two hours lab)

**PREREQUISITES:** *PHY 115*

**EXPECTED COMPETENCIES:**

The student will:

1. Explain mechanics
2. Discuss heat and thermodynamics
3. Demonstrate through laboratory experiments the following principles:
  - Instantaneous velocity by air track
  - Measurement of acceleration by air track
  - Acceleration due to gravity by free-fall-apparatus
  - Newton's second law by air track
  - Coefficient of static friction by inclined plane
  - Centripetal acceleration
  - Determination of spring constant by static method.
  - Determination of spring constant by dynamical method
  - Ballistic pendulum
  - Conservation of energy by air track
  - Mass of a meter stick by torque method
  - Moment of inertia by the spider wheel
  - Specific heat
  - Speed of sound by resonance tube
  - Speed of transverse wave.

**ASSESSMENT METHODS:**

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.



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### **GRADING SCALE:**

90%-100% = A

80%-89.9% = B

70%-79.9% = C

60%-69.9% = D

<60% = E