

course syllabus
for course number: **U754-104**
course title: **General Physics II**
publishing year: 2008

Number of credits or CEUs: 3 credits

Prerequisites: Physics 103 or consent of instructor

Course materials:

Required

1. Course guide
2. *Essentials of College Physics*, 1st ed., by Serway and Vuille (Brooks/Cole, 2007)

Optional

3. Student Solutions Manual/Study Guide, Volume 2, for Serway's *Essentials of College Physics*, 1st ed. (Brooks/Cole, 2007)

Course description:

This course provides the same information as a traditional, non-calculus-based, first-semester physics course without the laboratory work. The course consists of three modules.

Introduction to Electricity and Magnetism

1. Electric Forces and Electric Fields
2. Electrical Energy and Capacitance
3. Current and Resistance; Direct-Current Circuits
4. Magnetism
5. Induced Voltages and Inductance
6. Alternating Current Circuits and Electromagnetic Waves

Light and Optics

1. Reflection and Refraction of Light
2. Mirrors and Lenses
3. Wave Optics; Optical Instruments
4. Review

Modern Physics

1. Relativity
2. Quantum Physics
3. Atomic Physics
4. Nuclear Physics
5. Nuclear Energy and Elementary Particles

Written assignments:

This course has 14 required written assignments and 1 optional extra credit assignment. The written assignments consist of 20 problems each.

Exams:

There is an exam at the end of each module. Each exam consists of 12 problems, of which you are to do 10.

Grading information:

The final grade is:

50% - Average of all the written assignments

50% - Average of the 3 exams

Grading scale

A: (93–100)

AB: (88–92)

B: (83–87)

BC: (78–82)

C: (71–77)

D: (61–70)

F: (0–60)