

Hagerstown Community College
MASTER SYLLABUS

COURSE: * PHY 203, Principles of Physics 1, 5 credits Semester offered: Fall.

COURSE DESCRIPTION:* Principles of Physics 1, *this course includes a laboratory component.*

This course is the first course of a rigorous two-semester sequence of calculus-based Physics for physics, engineering, chemistry, and computer science majors. It includes mechanics, thermodynamics, oscillatory motion, waves, and sound. A laboratory fee is required.

*Prerequisites: MAT 101 and MAT 102 or MAT 161.

*Corequisite: MAT 203 may be taken concurrently.

TEXTBOOK: Fundamentals of Physics Extended, by Halliday, Resnick & Walker, 10th, ISBN 9781118230725, Wiley

LAB MANUAL: Physics Laboratory Investigations for PHY-203 by Paul Jozik, *HCC college store*

STUDENT LEARNING OUTCOMES:

1. Use mathematical models as a medium for quantitative reasoning and describing physical reality.
2. Use graphical models to analyze laboratory data.
3. Apply the classical conservation laws as a basis of deriving and understanding physics principles.
4. Describe physics concepts verbally, graphically, and mathematically.
5. Solve problems individually and collaboratively.
6. Use software to analyze physics experiments.
7. Access, process, analyze and synthesize scientific information.

TOTAL HOURS OF COURSEWORK:

For most classes, students should expect to do at least 2 hours of coursework outside of class for each hour of in-class coursework. College students are expected to spend as much time as needed in productive work to produce success, that amount of time varies greatly from student to student.

Minimum Clock Hours Required for this Course

Component of Course	Hours In Class	Hours Outside of Class	Total Hours per Semester Outside of Class
Lecture (<i>includes testing</i>)	50 hours	2.5 hours per lecture	75 hours per semester
Exams	8 hours	12.5 hours per exam	50 hours per semester
Laboratory (<i>includes testing</i>)	37.5 hours	2.5 hour per lab	30 hours per semester
Laboratory Exams	5 hours	10 hours per lab exam	20 hours per semester
Total	87.5 hours		175 hours

Services for Students with Disabilities: Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as possible. Students may contact a DSS staff member for an appointment at dss@hagerstowncc.edu or at 240-500-2530.

revised May 2018