

Hagerstown Community College

MASTER SYLLABUS

COURSE: PHY 205, Principles of Physics 3, 1 credit Semester offered: Spring

COURSE DESCRIPTION: *Principles of Physics 3

This is a supplementary course to PHY 204 offered tutorially as needed and concurrently with PHY 204. This is a calculus based Physics course. Topics include relativity, atomic, nuclear and quantum Physics. This course does not include a laboratory component.

*Prerequisite/Corequisite: PHY 204 may be taken concurrently.

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

STUDENT LEARNING OUTCOMES:

1. Use mathematical models as a medium for quantitative reasoning and describing physical reality.
2. Use graphical models to analyze 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 experimental data.
7. Access, process, analyze and synthesize scientific information.
8. Learn to effectively plan, schedule, and complete work in a tutorial setting with greater independence.

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. The normal 15 weeks of 50 minute class per week plus two hours of outside study gives an expected 37.5 hours of student time per credit. This course is offered as a tutorial. 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 especially in an tutorial course such as this one.

Minimum Clock Hours Required for this Course

Component of Course	Time In Class	Student Work	Time <u>Outside</u> Class
Exams: <i>2 exams, each 2.5 hours</i>	5 hours	Study for <i>2 exams,</i> <i>6 hours per exam</i>	12 hours
Group meetings: <i>5 meetings, each 0.4 hours</i>	2 hours		
Study sessions: <i>4 to 8 sessions, each 1 to 2 hours</i>	8 hours		
		Assigned problems	18 hours
Total	15 hours		30 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