

HAGERSTOWN COMMUNITY COLLEGE MASTER SYLLABUS

COURSE: PHS 108 INTRODUCTORY PHYSICAL GEOLOGY With Laboratory
4 Credits.

INSTRUCTOR: Christopher Burch, Annitsa Spanos

COURSE DESCRIPTION: This earth science course includes rocks and minerals, weathering and erosion, surface and groundwater, geologic time, plate tectonics, earthquakes and volcanoes, mountain building, glaciers, and shorelines. Local, regional, national, and global examples are used to demonstrate geological principles and environmental and human health applications. This course includes the complementary laboratory each week which includes rock and mineral identification, data analysis, map reading, groundwater and stream flow analysis, glacial and coastal processes, and structural geology. Prerequisite: MAT 099. Semester offered: Fall, Spring. 4 Credits.

TEXTBOOK:

Earth: An Introduction to Physical Geology Plus MasteringGeology, 12th Edition, by Edward J. Tarbuck, Frederick K. Lutgens and Dennis G Tasa. 2017

E-access for Modified MasteringGeology – can be bought directly online from [MasteringGeology.com](https://www.masteringgeology.com)

STUDENT LEARNING OUTCOMES:

At the completion of this course, students should be able to:

- Demonstrate knowledge of the scientific method by investigating and solving real-world geologic problems.
- Discover the role of the various spheres of our earth's system and learn how the interactions between these components and the composition of the earth affect the world around us.
- Use technology to learn about geological processes and monitor real-time events such as volcanoes, earthquakes, and floods.
- Apply course content to environmental and human health related issues (e.g. earthquakes, volcanoes, and air and water pollution.)
- Access, process, analyze and synthesize scientific information.

TOTAL HOURS OF COURSE WORK EXPECTED:

In order to meet the minimum requirements for a 4 credit class, the number of class/study hours expected of the student is multiplied by 3. The total work required to earn four college credits – 150 hours/semester, or 12 hours/week during a 15 week semester (includes class time plus additional homework/study time outside of class).

Please be aware that certain courses, or certain students, may require more than *minimum* hours of work per credit each week in order to be successful in that course.

Credit Hour to Clock Hour Calculation (for 4 credit course)

Direct Faculty Instruction: One hour Instruction/week/credit

$(50 \text{ min} * 15 \text{ weeks}) \div 60 \text{ min/h} = 12.5 \text{ h/credit} * 4 \text{ credits} = 50 \text{ hours}$

Student work out of classroom: (Two hours per credit per semester)

$(2 * 50 \text{ min} * 15 \text{ weeks}) \div 60 \text{ min/h} = 25 \text{ h/credit} * 4 \text{ credits} = 100 \text{ hours}$

Face to Face Hours

	Direct Faculty Instruction (in-Class)	Student work outside of class
"Lecture" time	37.5 h	
3 Lecture Exams Prep time LSC/Home		6 h (taking exams) 21 h (exam prep)
5 - 10 quizzes	(included in lecture time)	9 h (quiz prep)
Comprehensive Final Exam	(Included in lecture time)	8+ h Final exam prep (review notes/group study)
Homework Assignments (online and written)		20+ h
"Lab" time	37.5 h	
Lab Preparation Lab Practical Prep Lab Report Completion	0.5 h/lab*10 labs 3 h study time*2 (included in lab time)	5 h 6+ h
Total Lecture and Lab	75.0 h	75 h+
TOTAL	150+ hours (may exceed minimum of 150 h for 4 credits)	

Online Hours

	Student work outside of class
Online Faculty Instruction and Correspondence	50 hours
Reading Assigned Lecture Material (Textbook/PowerPoints)	24 chapters - 24 hours
Lecture Homework Assignments	24 - 48 hours
24 Quiz Modules	12 hours (prep)
3 Lecture Exams Prep time Home/LSC	6 hours (taking exams on campus) 6 hours (exam prep)
Comprehensive Final Exam	8+ hours (Final exam prep, review notes/group study)
Reading Lab Materials and Completing Lab Prep	15-30 labs x 1 hr/lab prep = 15-30 hours
Completing Lab Assignments	15-30 labs x 2 hr = 30-60 hours
TOTAL LECTURE & LAB	175 hours+ (Exceeds minimum of 150 hours of 4 credits)