

Instructor:

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Instructor's Schedule (including office hours*):

	Monday	Tuesday	Wednesday	Thursday	Friday
8	PS 110		PS 110		PS 110
9	Office Hours	Office Hours	PS 110 L	Office Hours	Office Hours
10					
11		PHY 201		PHY 201	
12					
1			PS 110 L		
2				PS 101 L	
3					

Exam Week	Monday	Tuesday	Wednesday	Thursday
8:00 to 10:00	PS 110			
10:15 to 12:15	PS 110L	Office Hours	Office Hours	PHY 201
12:45 to 2:45	PS 110L	Office Hours	PHY 201 Review	

Textbook:

Conceptual Physical Science 5 th edition, by Paul G. Hewitt, John A. Suchocki, and Leslie A. Hewitt (Pearson 2012, ISBN: 978-0321753342)

Catalog Description:

110 General Physical Science. 3 hrs. I, S.

Course covers the basic principles of chemistry, applications of chemistry, and an introduction to earth science. Atomic theory, chemical reactions and structure, everyday chemicals, and basic concepts of geology are studied. (PR: MTH 121, or MTH 121H, or MTH 123, or MTH 127, or MTH 130, or MTH 130H, or MTH 130E, or MTH 140, or MTH 203, or MTH 220, or MTH 225, or MTH 229, or MTH 229H; CR: PS 110L)

Grades:

A ≥ 90 > B ≥ 80 > C ≥ 70 > D ≥ 60 > F

Test 1 = 19%
 Test 2 = 19%
 Test 3 = 19%

Final Exam = 28%
 Online Homework = 10%
 Fold.it = 5%

* Office hours are subject to change, with notice given in class and on MUOnline. The instructor will make a serious effort to be in his office during office hours, but circumstances will sometimes require him to be elsewhere. Students are strongly urged to make appointments in advance when possible.

General Description:

PS 110 is half of a 2-semester survey of Physical Science, satisfying Core II Natural Science; it forms 1/3 of science content for K-6 Education majors. We'll describe how atoms are made up of electrons, protons, and neutrons; how compounds are made up of atoms; and how substances are made up of one or more compounds. We'll explain how electrons determine which atoms react with which others, how vigorously they react, which substances will dissolve in which others, and other physical and chemical properties. We'll explain how weathering, plate tectonics, and volcanic activity have created the rocks and shaped the landforms we see around us. Physical and chemical models will illustrate Arithmetic concepts; especially addition, multiplication, division, factoring. Quantity names will be abbreviated so that key statements about them can be written in concise unambiguous forms, to be manipulated via algebra, and drawn on graphs.

Course Learning Objectives:

Students will ...	Practiced by ...	Assessed through ...
Apply the principles of physical science to choose the correct description or outcome of physical situations.	Study Guides	Exams
Correctly identify the definitions of technical terms used in physical science.	Study Guides	
Solve physical science problems through a sequence of reasonable steps.	Homework, Study Guides	

Exams:

The course divides into two main units: chemistry and earth sciences. Test 1 and Test 2 will cover chemistry; Test 3 will cover half the earth sciences unit; and the final exam will be comprehensive, but will concentrate on the second half of the earth sciences unit. Tests 1-3 are each worth 19% of the course grade; the final exam is worth 28% of the course grade. See the schedule below for details about the chapters covered in each test as well as its date (subject to change).

Final Exam is Required:

From the Undergraduate Catalog: "Students are required to take all regular examinations. If a student attends a course throughout the semester and is absent from the final examination without permission, the instructor counts the examination as zero and reports the final grade of F. If the absence is the result of illness or some other valid reason beyond a student's control, the instructor reports a grade of I. In all cases, the student must verify the reason for the absence."

Homework:

To access the online homework, go to www.masteringphysics.com and use the access key that came with your textbook. If you have a used book or ordered the book online, you can buy an access key directly from the Mastering Physics website. The code for this course is **PS110SPRING2015RICHARDS**.

Fold.IT:

Science is really more a way of learning about the world than it is the facts that have been learned through the process of science – a point which is often lost in intro courses like this. Unfortunately, it is difficult to participate in new research without having mastered a large body of definitions, concepts, and techniques. Perhaps the best way to experience science as a process is to get involved with one of several crowd-sourced science projects. These projects generally rely on the fact that human beings are still much better than computers at picking out patterns. Fold.IT is a project looking for good strategies to find the folded configurations of proteins; it is one of the few projects related to chemistry.

Go to <http://fold.it/portal/node/2000181>, register, and request membership in the group. **5% of the course grade consists of completing the tutorials by Thursday, March 26 (the day before the last day to drop a course.)** Further participation in the project is encouraged, but optional.

Academic Dishonesty:

“Academic Dishonesty is something that will not be tolerated as these actions are fundamentally opposed to ‘assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance’ as described in Marshall University’s Statement of Philosophy.” Cheating and other forms of academic dishonesty will bring serious sanctions, including possible expulsion, as described in the *Undergraduate Catalog*.

Cheating will result in being reported to
the Dean of Students and, at minimum, either
(a) having all suspect work marked wrong or
(b) having the course grade reduced by one letter grade,
whichever is the heavier penalty.

You may work together on homework – in fact, that is highly recommended – but do not just copy someone else's answers. Not only is this dishonest, **it will make you more likely to do badly on the next test.**

Policy for Students with Disabilities:

Marshall University is committed to equal opportunity in education for all students, including those with physical, learning and psychological disabilities. University policy states that it is the responsibility of students with disabilities to contact the Office of Disabled Student Services (DSS) in Prichard Hall 117, phone 304 696-2271, to provide documentation of their disabilities. Following this, the DSS Coordinator will send a letter to each of the student’s instructors outlining the academic accommodation he/she will need to ensure equality in classroom experiences, outside assignment, testing and grading. The instructor and student will meet to discuss how the accommodation(s) requested will be provided. For more information, please visit <http://www.marshall.edu/disabled> or contact the Disabled Student Services Office.

Students with Medical Conditions that May Require Response or Accommodation:

In addition to the above, students with medical conditions, temporary or permanent, that may require special attention (for example, epilepsy) or accommodation should inform the instructor as soon as possible.

Your privacy will be respected.

Schedule:

Mon, Jan 12, 15	Classes begin
January 12, Monday -- January 16, Friday	Late registration/schedule adjustment (add-drop)
Fri, Jan 16, 15	Last day to add a class
Mon, Jan 19, 15	Martin Luther King, Jr. Holiday - University closed
Tue, Jan 20, 15	"W" period begins
Fri, Feb 6, 15	Applications for May graduation due in dean's office
Wed, Feb 11, 15	Test 1: Chapters 12-15 (subject to change)
Mon, Mar 9, 15	Freshmen/Sophomore mid-term grades due
March 16, Monday -- March 21, Saturday	Spring Break, Classes dismissed
Wed, March 25, 15	Test 2: Chapters 16-19 (subject to change)
Fri, Mar 27, 15	Last day to drop an individual course
Fri, Apr 10, 15	Test 3: Chapters 20-22 (subject to change)
Tue, Apr 14, 15	Assessment Day. Students receive a list of activities from their academic department or college
Mon, Apr 27, 15	Advance registration for fall semester begins
April 27, Monday -- May 1, Friday	"Dead Week"
Fri, May 1, 15	Last day to completely withdraw from spring semester; Last class day
Mon, May 4, 15	FINAL EXAM 8:00-10:00: Comprehensive, but concentrating on Chapters 23-25
Sat, May 9, 15	Commencement
Tue, May 12, 15	Grades due

University Policies:

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802.

- Academic Dishonesty
- Excused Absence Policy for Undergraduates
- Computing Services Acceptable Use
- Inclement Weather
- Dead Week
- Students with Disabilities
- Academic Forgiveness
- Academic Probation and Suspension
- Academic Rights and Responsibilities of Students
- Affirmative Action
- Sexual Harassment

Classroom Behavior:

Disorderly conduct that interferes with the normal classroom atmosphere will not be tolerated. The classroom instructor is the judge of such behavior and may instruct a disorderly student to leave the room with an unexcused absence. More serious misconduct may result in a complaint to the Office of Judicial Affairs. "Official University action will be taken when a student's or student group's behavior violates community standards, interferes either with the University's educational purpose, or with its duty to protect and preserve individual health, welfare, and property. When the behavior is aggravated or presents a continuing danger to the University community, accused students are subject to separation from the institution."

As a rule, **no food or drink** is allowed in the classroom. This is not always rigorously enforced, but certainly **it is never permissible to leave a mess**, whether crumbs or empty bottles, nor to distract the students around you. You are a grown-up, so act like one and be considerate.

Along the same lines, **all cell phones must be turned off or set to vibrate only** before the beginning of class. Any student who takes a call must leave the classroom to do so. Phone calls may not be placed or received during quizzes or tests. No devices may be used to play games or watch videos unrelated to classroom discussions.

You may not use your phone as a calculator during tests, nor any other tablet or device capable of sending or receiving text, emails, video, or phone messages. You can get a very good scientific calculator (e.g., Casio *fx-300ES PLUS*) for less than \$20; I recommend choosing one with two-line display (so you can check for typos in your input) and at least 3 memory locations (usually named A, B, C, ...) in which you can store intermediate results to avoid rounding error. Of course, if some other department required you to buy an unnecessarily expensive graphing calculator, you can use that, too.

Please **do ask questions** if you do not understand a concept, derivation, or calculation. Do not be embarrassed to ask; if you have a question, others probably have the same question! Let me know if I am going too fast or too slow. Private chats with other students, on the other hand, must be kept to an absolute minimum during class time; they are very distracting.