

VIRGINIA STATE UNIVERSITY
Engineering Science and Technology
Department of Chemistry and Physics

COURSE SYLLABUS

GEPH 101-01 PHYSICAL SCIENCE (3 Sem. Hrs.) Fall 2008

Class Meeting: MWF: 11:00 -11:50am Room: 156W

Instructor: Ms. Cecily J. Smith Office: 40Nd Hunter-McDaniel Building

Phone Number: (804) 524-5727 Email: cjsmith@vsu.edu

**Office Hours: MWF: 10:00 am – 11:00am, Thur: 10:00 am – 12:00 noon, and
Thursdays: by appointments**

IMPORTANT: Students are responsible for keeping up to date with current blackboard announcements. [The instructor is not responsible for any missed announcements that initiates a change in test, quizzes or any new information on the course]

COURSE DESCRIPTION:

A survey course with emphasis on understanding the fundamental laws of nature and the logical application of these laws to specific situations; particular areas covered include analysis of motion, Newton's laws, forces, energy, heat, waves, optics, electricity, atomic and nuclear physics.

COURSE TEXTBOOK:

Shipman, Wilson and Todd Introduction to Physical Science 11th Edition, Houghton and Mifflin, ISBN: 0-618-69789-6

PRACTICE BOOK: P. Hewitt, J. Suchocki and L. Hewitt, Conceptual Physical Science, 3rd Edition, Anderson Wesley, 2005, ISBN: 0-321-05181-5 Suggested as a reference practice book

COURSE REQUIREMENTS:

General academic regulations are described in the University Catalog and in the Student Handbook. Some relevant policies from the Catalog are included at the end of this syllabus. Students to whom the Americans with Disabilities Act apply should consult with the instructor about appropriate instructional arrangements.

Course requirements will include the following:

TENTATIVE CLASS SCHEDULE for FALL 2008

DAY	C H	SEC	TITLE	TEST/QUIZ
Aug 18		Introduction		
20		Math Review		
22	1	1.1, 1.2, 1.3	About Science, Measurement	
25		1.5, 1.6		
27	2	2.1, 2.2	Motion	
29		2.3		
Sept 1				
3		2.4		LABOR DAY HOLIDAY
5		2.5		
8		Review Ch 1 & 2		Quiz 1 (Chapters 1 & 2)
10				Test 1 (Chapters 1 & 2)
12	3	3.1, 3.2, 3.3	Force	
15		3.4		
17		3.5		
19		3.6		
22		3.7		
24	4	4.1	Work & Energy	
26		4.2		
28		4.3		
Oct 1		4.4		
3		4.5		
Oct 6		4.6		
Oct 8		Review Ch 3 & 4		Quiz 2 (Chapters 3 & 4)
10				Test 2 (Chapters 3 & 4)
Oct 13-14				FALL BREAK
15	5	5.1, 5.2, 5.3, 5.4	Temperature & Heat	
17		5.5 & 5.7		
20	6	6.1, 6.2	Waves	
22		6.3		
24		6.4		
27		6.5, 6.6		
29		Review Ch 5 & 6		Quiz 3 (Chapters 5 & 6)
31				Test 3 (Chapters 5 & 6)
Nov 3	7	7.1, 7.2	Optics & Wave Effects	
5		7.3, 7.4		
7		7.5, 7.6		
10	8	8.1	Electricity &	

			Magnetism	
12		8.2		
14		8.3		
17		8.4		
19		8.5		
21		Review Ch 7 & 8		Quiz 4 (Chapters 7 & 8)
24		Review Ch 1-4		Final Exam Prep
Nov 26-28				THANKSGIVING BREAK
Dec 1		Review Ch 5-8		Final Exam Prep
Dec. 3-6				Final exam, as scheduled by the University

A. Tests

Three (3) tests will be given during the semester. The best two will be counted. There will be no make-ups for missed tests. Collectively, the two tests that are counted will constitute **50%** of the course grade (thus each counted test contributes 25% to the final grade). **Students are responsible for bringing their own Scantrons for the tests and the final exam. A grade of zero will be given to students who do not provide their own Scantrons.**

Quizzes: Four (4) quizzes will be given throughout the semester and will count as **25%** of the course grade.

B: Final Examination

The final examination will cover all aspects of the entire course, including the reading assignments in the text, the lectures, and homework. It counts **25%** of the final grade. It will be given on the university scheduled exam day. No student shall take the final exam before the university scheduled day. There are no exceptions (request for excuses from any source shall be **denied**).

NOTE:

There are no test makeup days since two test will be dropped [No excuses shall be accepted for missed tests regardless of reasons. Test dates have been pre-set; only the instructor can move a test date. If you believe that you can not meet the expectations of this class, then you are advised to drop the course.

C. Homework

Students should answer all the questions and work all the problems from the ends of the assigned chapters (questions in the back of the book are **due at the completion** of the each chapter) Students are **responsible** for keeping track of due dates of these questions. The problems from the end of the chapters will be collected but will not be graded, students who do complete all the problems will end a 5% points to be added to their final grade. Students having problems doing the end of chapter problems should seek help immediately by utilizing my office hours. Sample problems will be worked in class, and

other solutions will be posted on the electronic Blackboard space for this course, <http://blackboard.vsu.edu>. Questions and problems on the Tests and final exam will be similar to those at the ends of the chapters. Occasionally, extra-credit problems will be assigned and they will be posted on blackboard.

D. Electronic Blackboard

Students are required to use Blackboard system <http://blackboard.vsu.edu>. The Learning Resource Center is available to all students with staff on hand to help. The center is located in Harris Hall room 104 and the hours are Mon-Thurs 8am – 10 pm, Fri. 8am – 5pm and Saturday 10am-5pm. Other computer centers are listed under <http://www.vsu.edu/docs/centers.pdf>

STUDENTS WITH DISABILITIES- Please contact me privately so that special accommodations may be provided. You may also contact the Office of Disabilities Program at 512-5061.

Students are expected to adhere to all of Virginia State Universities Code of Conduct and policies. Students are not permitted to eat food or drink beverages in the lab. Students may not perform duties that are not related to the class (including searching the internet or printing non GEPH 101 laboratory material) during laboratory time.

UNIVERSITY POLICIES: Attendance Policy

Classroom attendance is mandatory for freshman students. **Student's grades can be reduced by one letter grade for freshman students who exceed four hours of absences for a four-semester-hour course, three hours of absences for a three-semester-hour course, two hours of absences for a two hours course, and/or one hour for a one-hour course.**

GRADING STANDARDS

The standard University grading scale as described on the back of the transcript will be employed:

A: 90 - 100

B: 80 - 89

C: 70 - 79

D: 60 - 69

F: 0 – 59

Grading Policy

The approved grade symbols and grade symbol definitions are as follows:

Grade	Definition	Quality Points
A	Superior Performance	4
B	Good Performance	3
C	Average Performance	2
D	Poor Performance	1

F Failure 0
 The following symbols are used and have no quality point value, thereby being neutral in grade point average determination.

Grade Symbol	Definition
I	the student, otherwise passing, has for good reason failed to complete all requirements. The I grade must be removed in one year or be changed to F
E	The student, otherwise passing, fails the final examination and, in the opinion of the instructor, deserves another examination. The E grade must be removed in one year or be changed to F
S	The student has earned credit hours for which enrolled and represents satisfactory completion of certain experiences at the undergraduate level.
U	The student has not earned credit hours for which enrolled and represents unsatisfactory performance
Z	Audit
W	Withdrawn
N	No grade given

LEARNING OUTCOMES:

KNOWLEDGE	ACTIVITIES	EVALUATION STRATEGIES
The student will	The basic assumptions underlying the structure of the physical sciences	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	The terminology used in the areas of mechanics, heat, sound, and basic chemistry and become acquainted with symbols and equations as a means of communications	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	Some of the major laws, principles, and rules in physical science e.g., Newton's laws of motion, Newton's Universal law of gravity, and conservation laws	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	Basic concepts of the scientific method	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	About physicists and/or chemists and their contribution to the physical sciences	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving,

		quizzes and/or tests
	About issues of current scientific interest.	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests

SKILLS:

KNOWLEDGE	ACTIVITIES	EVALUATION STRATEGIES
The student will	Develop techniques enabling them to make reasonable estimates of some quantitative situations.	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	Develop critical thinking and reasoning skills	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests

ABILITIES:

KNOWLEDGE	ACTIVITIES	EVALUATION STRATEGIES
The student will	Separate unsubstantiated myth from verified scientific fact	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	Define problems and propose approaches to their solutions	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests
	Use the metric system of units, and convert quantities between systems of units	Class discussions, lectures, reading assignments, investigations, class assignments, homework, problem solving, quizzes and/or tests