COURSE SYLLABUS
PHY139, SECTION 02
SOUND, LIGHT, ELECTRICITY, AND MAGNETISM
3 CREDIT HOURS
Spring 2008

1. LOCATION OF CLASS MEETING

Room 209 of the Farrington Building

2. CLASS MEETING TIMES

Tuesday and Thursday between the hours of 12^{30} and 13^{50}.

3. INSTRUCTOR

The instructor for this class is Dr. Charles R. Meitzler

4. OFFICE LOCATION

313 Farrington Bldg.

5. INSTRUCTOR CONTACT INFORMATION

The instructor may be contacted in one of several ways:

1) Phone 936.294.1601
2) E-mail: crmeitzler@shsu.edu

6. OFFICE HOURS

Office hours for this course are at the following times:

Monday	$13^{00} – 16^{00}$
Tuesday	TBD
Wednesday	$13^{00} – 16^{00}$
Thursday	TBD
Friday	None

As per University policy, other times are available by appointment only. These office hours are subject to change and revision without prior notification during the semester for a variety of university-related functions or instructor illness.

7. COURSE DESCRIPTION

This course is the follow-on to PHY138. It will cover the following topics: fluid dynamics, electrostatics, magnetostatics, light, optics and waves. Other topics may be covered if time permits. Student performance will be assessed via three exams and homework problems. Students are encouraged to ask questions during class. Furthermore, you are encouraged to ask questions about any physical phenomena you observe in daily life or have read about in a newspaper.

8. COURSE OBJECTIVES

The objective of this course is to round out your knowledge of physics by applying the fundamental concepts learned in the first semester to new problems and phenomena. You will need to learn the basic

concepts. Ideally, you should be able to apply your knowledge to an assortment of practical problems.

9. REQUIRED TEXTBOOKS

This course uses the same textbook that you used in PHY138. You should have this book from your previous semester. **Students are required to acquire a copy of the textbook prior to the third class meeting.**

10. REQUIRED SUPPLIES

The following supplies are required for this course:

1) Writing instrument
2) Scientific calculator with the following higher-order functions: sine, cosine, square root, exponentiation, scientific notation.
3) Notebook or ring binder with appropriate paper
4) Textbook

11. OPTIONAL TEXTS, REFERENCES, AND SUPPLIES

No optional texts, references or supplies are required for this course.

12. ATTENDANCE POLICY

As per University policy, attendance will be taken on a regular, periodic basis. Attendance is not used to calculate your final grade for the course. You do not need to notify the instructor prior to absences. Attendance at scheduled exams is mandatory.

Lecture notes will be available on-line if you miss a class. They will be in PDF format.

13. ASSIGNMENTS

Homework problems have been assigned as an addendum to this syllabus. The assigned problems are the **minimum number required to just pass the course**. It is highly recommended that you should do two to three times the number of assigned problems if you want to earn a good grade.

The homework problems will be turned in on a date described by the instructor. The due dates will be announced as the course progresses. The following rules apply:

1) Late homework will be accepted with a mandatory 50% reduction in value. "Late" is defined as the homework being submitted through any channel other than at the end of the class on the due date.
2) The homework problems must be submitted at only one problem per page. Example: if there are 10 problems assigned, then your homework should have ten pages.
3) Homework assignments must be titled with the number of the assignment. Do not use chapter numbers.
4) Only one assignment per package.
5) Staples are mandatory. "Lost" or "missing" pages will not be counted towards your grade, nor can they be submitted at a later time.

14. HOMEWORK GRADES

Homework grades will be provided on "Blackboard" as a courtesy only - the official grades are maintained off-line. Your final homework grade will be calculated off-line using the following formula:

$$HW = \frac{\text{Your total homework points}}{\text{Total available homework points}} \times 100$$

15. EXAMS

There will be three exams for this course: two exams during the semester and the final exam. The final exam will be held at the time scheduled by the University. All exams will consist of a mixture of conceptual questions and problems. Because of the nature of the subject, all exams are cumulative. The scheduled dates for the midterm exams is given in the following table

MT1	21 February 2008
MT2	8 April 2008
F	As scheduled by the university

The following additional rules and conditions apply:

1) **Attendance at exams is mandatory.** Failure to attend will result in the grade of zero.
2) Midterm grades will be provided on "Blackboard" as a courtesy only - the official grades are maintained off-line.
3) **Exam dates will not be changed due to conflicts with other courses.** Failure to attend will result in a grade of zero being given to the student.
4) **Make-up exams** will not be given without a valid medical excuse signed by a licensed physician or the student is in compliance with the Religious Holy Days policy given below.

16. GRADING PLAN

The official grades and calculations are maintained off-line. Only the official grades are used to calculate the final course grade. The average course grade is calculated using the following formula:

$$\text{Avg} = \frac{1}{4}(\text{MT1} + \text{MT2} + \text{HW} + \text{F})$$

After obtaining the average, letter grades will be assigned according to the following scale:

A	$90 \le \text{Avg} \le 100$
B	$80 \le \text{Avg} < 90$
C	$70 \le \text{Avg} < 80$
D	$60 \le \text{Avg} < 70$
F	$\text{Avg} < 60$

The final letter grades will be assigned by a computer program that I have written. **Be aware: an average of 79.99999999999999999999 is a "C."**

University mandated parts of syllabi:

Student Syllabus Guidelines: You may find online a more detailed description of the following policies. These guidelines will also provide you with a link to the specific university policy or procedure:

http://www.shsu.edu/syllabus/

Academic Dishonesty: Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. *See Student Syllabus Guidelines*.

Classroom Rules of Conduct: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students are to treat faculty and students with respect. Students are to turn off all cell phones while in the classroom. Under no circumstances are cell phones or any electronic devices to be used or seen during times of examination. Students may tape record lectures provided they do not disturb other students in the process.

Student Absences on Religious Holy Days: Students are allowed to miss class and other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Students remain responsible for all work. *See Student Syllabus Guidelines*.

Students with Disabilities Policy: It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should visit with the Office of Services for Students with Disabilities located in the Counseling Center. *See Student Syllabus Guidelines*.

Visitors in the Classroom: Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

Addendum: Tentative Course Schedule

Physics 139 General Physics – Sound, Light, Electricity and Magnetism

Week	Date	Reading	Problems
1			
	17 Jan 2008		
2	22 Jan 2008	Sections 13.1 – 13.5	**HW1:** 13.1, 13.5, 13.6, 13.8, 13.9, 13.11, 13.13, 13.26, 13.30, 13.33
	24 Jan 2008		
3	29 Jan 2008	Sections 13.7 – 13.11	**HW2:** 13.38, 13.39, 13.40, 13.42, 13.45, 13.50
	31 Jan 2008		
4	5 Feb 2008	Sections 14.1 – 14.5	**HW3:** 14.1, 14.5, 14.6, 14.10, 14.13, 14.18, 14.19, 14.28, 14.35, 14.59
	7 Feb 2008	Sections 14.6 – 14.8	
5	12 Feb 2008	Sections 14.9 -14.12	**HW4:** 14.42, 14.43, 14.45, 14.46, 14.49, 14.52, 14.65,
	14 Feb 2008		
6	19 Feb 2008	Sections 15.1 – 15.5	**HW5:** 15.1, 15.2, 15.3, 15.5, 15.16, 15.20, 15.21, 15.23, 15.48
	21 Feb 2008	**MT1**	
7	26 Feb 2008	Sections 15.6, , 15.8, 15.9	**HW6:** 15.34, 15.35, 15.36, 15.37, 15.38, 15.40, 15.45, 15.64
	28 Feb 2008		
8	4 Mar 2008	Sections 16.1 – 16.4	**HW7:** 16.1, 16. 3, 16.5, 16.6, 16.8, 16.11, 16.12, 16.16
	6 Mar 2008		
9	18 Mar 2008	Section 16.5	**HW8:** 16.22, 16.43, 16.45, 16.47
	20 Mar 2008	Section 16.6 – 16.8	
10	25 Mar 2008	Section 16.9 – 16.10	**HW9:** 17.2, 17.3, 17.7, 17.10,

	27 Mar 2008	Sections 17.1 – 17.8	17.14, 17.31, 17.33, 17.34, 17.45, 17.63
11	1 Apr 2008	Sections 18.1 – 18.3	
	3 Apr 2008		
12	8 Apr 2008	**MT2**	**HW10:** 19.1, 19.5, 19.7, 19.11, 19.19, 19.27, 19.28
	10 Apr 2008	Sections 19.1 – 19.6	
13	15 Apr 2008	Section 19.8, 19.9	**HW11:** 19.45, 19.47, 20.1, 20.3, 20.5, 20.8, 20.47, 20.59
	17 Apr 2008	Sections 20.1 – 20.4	
14	22 Apr 2008		
	24 Apr 2008	Section 20.8	
15	29 Apr 2008	Section 21.8	
	1 May 2008		
16	6 May 2008		Review for Final Exam
	8 May 2008		
	As scheduled by University		