

COURSE SYLLABUS
PHY139, SECTION 02
SOUND, LIGHT, ELECTRICITY, AND MAGNETISM
3 CREDIT HOURS
Fall 2007

1. LOCATION OF CLASS MEETING

Room 105 of the Farrington Building

2. CLASS MEETING TIMES

Tuesday and Thursday between the hours of 14⁰⁰ and 15³⁰.

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	13 ³⁰ – 14 ⁰⁰
Wednesday	13 ⁰⁰ – 16 ⁰⁰
Thursday	13 ³⁰ - 14 ⁰⁰
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 the newspaper.

8. COURSE OBJECTIVES

The objective of this course is to round out your knowledge of physics by applying the concepts learned in the first semester to new problems. 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. Attendance at scheduled exams is mandatory. Documentation from a licensed physician is required if you will miss an exam.

13. ASSIGNMENTS

Homework will be assigned on a regular basis and will consist of a set of questions and numerical problems. The purpose of the homework is to familiarize the student with the material being covered in the course. Homework will be assigned for each chapter as we progress through the semester. The problems are due one week after being assigned.

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	20 September 2007
MT2	1 November 2007
F	As scheduled by the university

Course Schedule

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

Week	Date	Reading	Problems	Class Format
1	21 Aug 2007			
	23 Aug 2007			
2	28 Aug 2007	Sections 13.1 – 13.5	13.1, 13.5, 13.6, 13.8, 13.9, 13.11, 13.13, 13.26,	Lecture
	30 Aug 2007		13.30, 13.33	Lecture
3	4 Sep 2007	Sections 13.7 – 13.11	13.38, 13.39, 13.40, 13.42,	Lecture
	6 Sep 2007		13.45, 13.50	Recitation
4	11 Sep 2007	Sections 14.1 – 14.5	14.1, 14.5, 14.6, 14.10, 14.13,	Lecture
	13 Sep 2007	Sections 14.6 – 14.8	14.18, 14.19, 14.28, 14.35, 14.59	Lecture
5	18 Sep 2007	Sections 14.9 - 14.12	14.42, 14.43, 14.45, 14.46,	Lecture
	20 Sep 2007		14.49, 14.52, 14.65,	Lecture
6	25 Sep 2007	Sections 15.1 – 15.5	15.1, 15.2, 15.3, 15.5, 15.16, 15.20,	Recitation
	27 Sep 2007		15.21, 15.23, 15.48	Midterm 1
7	2 Oct 2007	Sections 15.6, , 15.8, 15.9	15.34, 15.35, 15.36, 15.37, 15.38, 15.40,	Lecture
	4 Oct 2007		15.45, 15.64	Lecture
8	9 Oct 2007	Sections 16.1 – 16.4	16.1, 16.3, 16.5, 16.6, 16.8, 16.11,	Lecture

	11 Oct 2007		16.12, 16.16	Recitation
9	16 Oct 2007	Section 16.5	16.22, 16.43, 16.45, 16.47	Lecture
	18 Oct 2007	Section 16.6 – 16.8		Lecture
10	23 Oct 2007	Section 16.9 – 16.10	17.2, 17.3, 17.7, 17.10, 17.14, 17.31, 17.33, 17.34, 17.45, 17.63	Lecture
	25 Oct 2007	Sections 17.1 – 17.8		Recitation
11	30 Oct 2007	Sections 18.1 – 18.3		Lecture
	1 Nov 2007			Recitation
12	6 Nov 2007	Sections 19.1 – 19.6	19.1, 19.5, 19.7, 19.11, 19.19, 19.27, 19.28	Midterm 2
	8 Nov 2007			Lecture
13	13 Nov 2007	Section 19.8, 19.9	19.45, 19.47, 20.1, 20.3, 20.5, 20.8, 20.47, 20.59	Lecture
	15 Nov 2007	Sections 20.1 – 20.4		Lecture
14	20 Nov 2007			Recitation
	22 Nov 2007	Section 20.8		Lecture
15	27 Nov 2007	Section 21.8		Lecture
	29 Nov 2007			Lecture

16	4 Dec 2007			Recitation
	6 Dec			Review, Closing Comments
	As scheduled by University			Final Exam

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.