Syllabus

Instructor: Dr. Balraj Menon
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Lecture: MWF 10:00 am - 10:50 am, LSC 100
Laboratory: Seq 6911: T 8:00 am - 9:15 am LSC 108
Seq 6912: T 9:25 am - 10:40 am LSC 108
Seq 6913: T 10:50 am - 12:05 pm, LSC 108
Seq 6914: T 12:15 pm - 1:30 pm LSC 108

Office hours

- MWF 11:00 am - 12:30 pm AND by appointment.
- Feel free to stop by my office at any other time. If I am available and not occupied with anything else I will be glad to help you with your questions.

Required text

Conceptual Physics, 9th Edition, Paul G. Hewitt. Publisher: Addison Wesley.

Other supplies

Calculator, ruler.

Web access

- All documents pertaining to this course are available on WebCT (http://ce2.uca.edu:8900).
- You need to login to WebCT and add this course. Logging instructions can be found at http://www.uca.edu/aoep/webct.htm.
- The course is listed as *Physical Science for Gen Ed (Menon MWF)*.

Course description

The primary objective of this one-semester course is to help you appreciate the important role played by the physical sciences in furthering our understanding of the physical world around us. In this course you will be introduced to some of the fundamental principles and concepts of physics and will learn how to apply these principles to explain a wide range of phenomena involving motion, heat, electricity, magnetism, light, and atoms. This course also has a laboratory component. The laboratory gives you an opportunity to apply some of the concepts that you learn in the lecture to realistic situations.

Lectures

- The lectures will primarily focus on discussing the various physical principles and concepts arising in each chapter. At this point let me emphasize that **the purpose of these lectures is not for me to read the text in class but to focus on strengthening your understanding of the concepts**. In other words, to get the most out of these lectures, I would strongly advice you to read the relevant chapters before you come to class (see *Lecture schedule* for details).

- It is conceivable that some of the topics discussed in lecture may not be covered in the text. For these topics your lecture notes will be your only source of information. So, *keep good notes!*

- You are required to attend *all* the lectures. If you are unable to attend a class period due to a medical reason or some other emergency please inform me by phone or email as soon as possible, preferably before the class meets. Attendance will not be taken every lecture, however, points may be awarded for participating in lecture activities.

Laboratory

- The laboratory component is an integral part of this course. The experimental activities have been chosen and designed to complement the lecture course and also introduce you to experimental methods and techniques in the physical sciences. You will be performing these laboratory activities in groups of two or three. Working on the labs diligently will be a very rewarding experience. Points will be awarded for attending the labs and actively participating in the lab activities as an individual and as a group member.

- You are required to attend *all* labs. **If you miss three (3) or more labs you will fail the course.** If you are unable to attend a lab session due to a medical reason or some other emergency please inform me by phone or email as soon as possible, preferably before the lab meets.

- **There will be no make-up labs.**

Homework

- At regular intervals you will be assigned homework assignments. These assignments will be posted on WebCT along with the due dates. Homework assignments will typically include a list of short answer questions and numerical problems chosen from the text. These assignments must be submitted on due dates for credit.

- The homework assignments submitted will not be graded but you will be given credit for attempting them. Each assignment will be worth ten points. To get full credit it is important that you attempt all the assigned problems and show all your work neatly and clearly. Do not hesitate to come and talk to me if you are having trouble with these assignments. Feel free to collaborate and discuss these problems with other students from the class.

- **Late assignments will be accepted, but two points will be deducted for each day past the due date of submission**.

Lab quizzes

- Most lab sessions will begin with a 10 minute quiz where you will be tested on the previous lab activity. To do well in the lab quizzes, it is important that you keep a good record of all the work you do in the lab.

- The ten minute time limit on a lab quiz will be strictly enforced. If you walk in late, you will still have to submit your quiz at the end of the first ten minutes (no time extensions) or if you miss the first ten minutes of a lab period, you will not be allowed to take the lab quiz.

- Your lowest lab quiz score will be dropped while determining your overall laboratory grade.

- **There will be no make-up lab quizzes.**

Exams

- You will be taking five tests during the semester (see *Lecture schedule* for test dates). Please mark your calendars and be sure not to miss these tests.
- The questions on the tests will be drawn from topics discussed in the text and in class, the homework assignments and the laboratory activities. Attending the lectures, reading the text, working through all the assigned homework and the lab activities will help you a great deal in doing well in these tests.
- Your lowest test score will be dropped while determining your average score in the tests. If you miss a test, the missed test will be treated as your lowest test score. **There will be no make-up tests**.
- There will be a two-hour **Final Exam** at the end of the semester. It will be comprehensive and most of the questions will be drawn from previous tests, lab quizzes, and assigned homework.

  → **The Final Exam is scheduled for Monday, May 2, 2005, from 11:00 am – 1:00 pm in LSC 100**.

Course grade

Your grade in this course will be based on your participation in the classroom and labs, homework assignments, lab quizzes, tests and final exam. The various components are weighted as follows:

Homework and class participation:	15%
Laboratory:	25%
Tests:	40%
Final exam:	20%

The percentage points required for each grade letter is:

$\geq 90\%$	A	80%–89%	B	70%–79%	C	60%–69%	D	$< 60\%$	F

Academic integrity:

Plagiarism, copying from others on tests, use of unauthorized materials on tests and quizzes (cheat sheets, electronic devices with text-messaging capabilities such as computers, cell phones etc.) or any other form of academic misconduct is strictly prohibited.

- Penalties for academic misconduct are described in the UCA Student Handbook-2004–2005.
- Penalties range from grade reduction to expulsion from UCA.

University policies

Students are expected to be familiar with the general policies of the University and are encouraged to read the UCA Student Handbook-2004–2005. Pay particular attention to the following policies:

1. Academic Policies (starting on Page 34 of the UCA Student Handbook-2004–2005)
2. Sexual Harassment Policy (Pages 109-111 of the UCA Student Handbook-2004–2005)

Classroom etiquette: To ensure that you get the most out of this course it is important that efficient use be made of class and laboratory time. Students are strongly advised to refrain from all activities that may be perceived as disruptive by the instructor.

Some activities that are a definite "no-no" in this course are:

1. Using cell phones in the lecture room and the laboratory.
   - Cell phones should be out of sight and switched off once the instructor enters the classroom and should remain so till the student or the instructor leaves the classroom.
   - Under no circumstances will cell phones be allowed during exams. In particular, you will not be allowed to use the calculator on your cell phone during an exam or lab quiz. You must bring a calculator.
2. Putting your books away and packing your bags while the class is still in session.
   - Avoid it!! It is very, very distracting and disruptive.
   - Of course, you may start packing your bags if the instructor has signalled the end of class or if the instructor has overshot the allotted fifty minutes of class time (which may happen occasionally!).
3. Entering the laboratory or lecture room after the instructor has begun teaching, or leaving before the end of the class period while the instructor is still teaching.
   - Get to class on time! You may enter the classroom within five minutes after class begins and occasionally (once or twice a semester) within ten minutes after class begins. But do not enter the classroom more than ten minutes after the beginning of class!
   - Once you enter the classroom, be prepared to stay the entire class period. Leaving the classroom while the class is in session is very disruptive and must be avoided. If, due to an emergency, you have to leave early, inform the instructor in advance or talk to the instructor immediately after class.
4. Chatting or laughing in class. As much as possible, avoid conversations not related or relevant to what is being discussed in the classroom.

Americans with disabilities

The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Office of Disability Services, 450 3135. In addition, please make every attempt to meet with me during the first week of classes to make suitable arrangements.