Syllabus

**Laboratory Coordinator:** Professor Vik Malhotra
Office: Neckers 423C
Office Hours: M, T, W: 10 a.m. to noon#
E-Mail: vmalhotra@physics.siu.edu
Telephone: 618-453-5166

# If you have a laboratory-related issue, please first contact your laboratory instructor before I can entertain your concern(s). If you and your instructor can not reach a reasonable accommodation, please feel free to approach the laboratory coordinator. I cannot change the grades, however.

**LABORATORY INSTRUCTORS:**

**Section 1 (F: 11:00 a.m.):**

Ms. Krishna Yalavarthi
Office: 476
E-Mail: kkyalava@siu.edu
Office Hours: R: noon to 1 p.m.

**Sections 2 (F: 9 a.m.):**

Mr. Ali Abu Nada
Office: 414A
E-Mail: anada@siu.edu
Office Hours: M: 11 a.m. to noon;
R: 12 p.m. to 1 p.m.

**Sections 3 (R: 11 a.m.):**

Mr. Shree Banjara
Office: 430G
E-Mail: sbanjara@siu.edu
Office Hours: W: 1 p.m. to 3 p.m.

**Sections 4 (R: 1:00 p.m.):**

Ms. Krishna Yalavarthi
Office: 476
E-Mail: kkyalava@siu.edu
Office Hours: R: noon to 1 p.m.

**Sections 5 (F: 1 p.m.):**

Mr. Shree Banjara
Office: 430G
E-Mail: sbanjara@siu.edu
Office Hours: W: 1 p.m. to 3 p.m.
Section 6 (R: 9 a.m.):
Cancelled

Sections 7 (R: 6 p.m.):

Mr. Shree Banjara
Office: 430G
E-Mail: sbanjara@siu.edu
Office Hours: W: 1 p.m. to 3 p.m

Requirements:

3. Scientific calculator required.
4. Attendance is mandatory!

Attendance:

Attendance for this course is mandatory. Since there are no make-up labs, you must attend every lab session. Allowed absences are given for the following documented reasons only: (i) Religious observance; (ii) Military service; (iii) Bereavement (i.e., death in your immediate family); (iv) Official university business (properly documented using appropriate forms from an athletic or academic advisor; and (v) a properly documented medical reason. Note: A slip stating that the student visited the Student Health Center does not fulfill this requirement. Documentation that you were hospitalized or an official doctor’s note is required.

Lab Reports:

There will be two types of labs: (1) traditional labs in which data is taken by hand and (2) computer labs done using the computer and attached equipment to gather data. Attached to this syllabus is a schedule of the labs telling which type of lab each one will be. The kind of report that you hand in to your lab instructor will depend on which type of lab you are doing. Your lab instructor will give you specific information on how they will grade the labs. The lab reports will comprise 65% of your final grade for the course.

A. Traditional Lab Reports:

These are individual reports; data will be shared by all the members of the group but each member should write his/her own report.

Report format is as follows (follow the format of the sample lab provided in your lab manual on page iv):

a. Title of the lab, your name, course number and section number, date.
b. Objective. What is the point of doing this lab? What are you trying to achieve/learn?

c. Apparatus. What instruments and materials did you use in the lab?

d. Introduction/theory. In your own words, briefly, describe the theory behind the experiment.

e. Results. This section should include the data collected during the lab, graphs you made from data collected, calculation you had to do. Questions you answered in the lab (that are not part of the formal question part).


g. Discussion and Conclusions. Brief discussion of what you learned, what could be improved.

h. Answers to Questions.

i. Data Sheets. Attach a copy of the sheets used for the data collection during the lab.

1. Reports are due the next lab meeting.

2. Late reports will not be accepted.

3. Reports must be typed.

B. Computer Lab Reports

1. Choose the electronic workbook that corresponds to the lab scheduled for that specific week.

2. The lab is divided into three sections: (1) Record data, (2) Analyze, and (3) Synthesize.

3. Follow the computer instructions in each section and answer all required questions on the computer.
   Remember to include units when you report your results.

4. You may save the lab report to your flash drive. Do not save it on the lab computer.

5. Print a copy of the lab report and turn it in to the lab instructor at the end of the lab. One lab report is required per station.

There will be no make-up labs.

PRE-LAB QUIZZES & QUIZZES:

Pre-Lab Quizzes: You should prepare for each lab ahead of time by reading and studying the lab manual. Each week, at the beginning of the lab period, your instructor will give you a short pre-lab quiz. The purpose of this pre-quiz is to determine that you have read the lab manual ahead of time and have an idea what is going to be covered in that week’s lab.

Regular Quizzes: Regular quizzes will be given every other week, which will cover material from the previous two labs. There will be no make-up quizzes.

FINAL EXAM:
You will have a comprehensive final exam that is given during the last week of classes.
<table>
<thead>
<tr>
<th>GRADES:</th>
<th></th>
<th>GRADING SCALE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports</td>
<td>65%</td>
<td>Above 90%</td>
<td>A</td>
</tr>
<tr>
<td>Pre-Lab Quizzes</td>
<td>6%</td>
<td>80% – 89.9%</td>
<td>B</td>
</tr>
<tr>
<td>Quizzes</td>
<td>14%</td>
<td>70% – 79.9%</td>
<td>C</td>
</tr>
<tr>
<td>Final Exam</td>
<td>15%</td>
<td>60% – 69.9%</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Below 59.9%</td>
<td>F</td>
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</tbody>
</table>

The lowest lab, quiz, and pre-lab quiz grades will be dropped.
LAB SCHEDULE:

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Activities</th>
<th>Lab Topic</th>
<th>Lab Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/18/2011</td>
<td></td>
<td>Orientation</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>01/24/2011</td>
<td>Electroscope;</td>
<td>Basic Magnetism</td>
<td>T</td>
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<tr>
<td>3</td>
<td>01/31/2011</td>
<td>Electric Fields</td>
<td></td>
<td>T</td>
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<tr>
<td>4</td>
<td>02/07/2011</td>
<td>Quiz 1</td>
<td>Deflection of Electrons</td>
<td>T</td>
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<tr>
<td>5</td>
<td>02/14/2011</td>
<td></td>
<td>Ohm’s Law</td>
<td>C</td>
</tr>
<tr>
<td>6</td>
<td>02/21/2011</td>
<td>Quiz 2</td>
<td>DC Series; DC Parallel</td>
<td>C</td>
</tr>
<tr>
<td>7</td>
<td>02/28/2011</td>
<td></td>
<td>Wheatstone Bridge</td>
<td>T</td>
</tr>
<tr>
<td>8</td>
<td>03/07/2011</td>
<td>Quiz 3</td>
<td>RC Circuit</td>
<td>C</td>
</tr>
<tr>
<td>9</td>
<td>03/21/2011</td>
<td></td>
<td>Magnetic Field Around a Wire</td>
<td>C</td>
</tr>
<tr>
<td>10</td>
<td>03/28/2011</td>
<td>Quiz 4</td>
<td>Magnetic Field of a Solenoid</td>
<td>C</td>
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<tr>
<td>11</td>
<td>04/04/2011</td>
<td></td>
<td>Faraday’s Law</td>
<td>C</td>
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<tr>
<td>12</td>
<td>04/11/2011</td>
<td>Quiz 5</td>
<td>Rays, Mirrors</td>
<td>T</td>
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<tr>
<td>13</td>
<td>04/18/2011</td>
<td></td>
<td>Polarization</td>
<td>C</td>
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<tr>
<td>14</td>
<td>04/25/2011</td>
<td>Quiz 6</td>
<td>Diffraction of Light</td>
<td>C</td>
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<tr>
<td>15</td>
<td>05/02/2011</td>
<td></td>
<td>FINAL EXAM</td>
<td></td>
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</tbody>
</table>

*T = traditional lab (use SIU Lab manual); C = computer lab (Cutnell & Johnson lab manual)

NOTES AND POLICIES:

If you should drop the lecture course at some point during the semester, you must also drop the lab course.

Cell phone use (of any kind – voice, texting, calculator, photography…) or the use of other personal electronic devices (unless approved by the instructor) is not allowed during the lab. Phones must be rendered inaudible (either turn them off completely or at least set them to silent mode) during the lab time. Note: During exams and quizzes, any cell phone use will automatically constitute cheating (and will be dealt with as such).

We will follow the SIUC student conduct code as posted here: [http://policies.siuc.edu/policies/conduct.html](http://policies.siuc.edu/policies/conduct.html)
Emergency Procedures. Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT’s website at www.bert.siu.edu, Department of Safety’s website www.dps.siu.edu (disaster drop down) and in Emergency Response Guideline pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.