Physics 181: Intro to Modern Physics Laboratory
Course Syllabus
Fall 2010, Wed 10:20-12:20, TCCW 205

Instructor: Dr. Steven Gibson
Office: TCCW 231
Phone: 745-3019
E-mail: (first).(last) (at) wku.edu
Office hours: M 1:50-3:50, or by appointment
Course website: physics.wku.edu/~gibson/phys181

Catalog Description: Required for students enrolled in Physics 180 (Intro to Modern Physics). Laboratory experience focusing on applications of optics, thermodynamics, the structure and behavior of atoms, wavelike properties of particles, and quantization of light, charge and energy.

Materials: A laboratory manual for this course is available in the campus bookstore. General information is available at the course website listed above, which should be consulted for assignment information, including possible changes to the order of experiments given in the lab manual.

Grading Method: Letter grades for the course will be assigned on the usual scheme in the table at left below. The letter grade thresholds may be lowered but will not be raised. The relative weights of the course components contributing to the numeric score are listed in table at right.

<table>
<thead>
<tr>
<th>% Avg Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79</td>
<td>C</td>
</tr>
<tr>
<td>60 - 69</td>
<td>D</td>
</tr>
<tr>
<td>0 - 59</td>
<td>F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Grade Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Exercises + Reports</td>
<td>80%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

Assignments

- **Reading:** You are responsible for reading about each laboratory exercise before the laboratory session. Many experiments we will do are quite detailed, and it is critical that you not waste time in the laboratory on reading that can be done outside in advance, or you may not finish within the required time. Laboratories cannot run over schedule.

- **Pre-Lab Exercises:** Many labs include a pre-lab exercise that must be completed before the beginning of the lab session. These count as part of your grade, so don’t forget them!
• **Laboratory Reports:** These should comply with requirements outlined in the laboratory manual. Briefly, show all data taken during the lab period; give a clear overview of the calculations performed; label all tables and graphs clearly with correct quantities and units. Lab reports are due NO LATER THAN the beginning of the next week’s laboratory session. Late reports will not be accepted and will receive a grade of zero.

• **Final Examination:** A laboratory final examination will be given in the last lab session during regular classes.

**Note on Collaboration:** During the laboratory period, while you are collecting data, you may work with lab partner(s). Obviously, you and your partner(s) will have the same data. However, each of you must submit a laboratory report that is demonstrably your own work. Be sure that the discussions of data, procedures, and conclusions in your report are clearly in your own words.

**Attendance:** Regular and punctual attendance is expected of everyone during every laboratory meeting. If you miss a lab, you will receive zero credit for that week’s lab.

**Drop/Audit Policy:** Due to the nature of this course, PHYS 256 cannot be audited. If you choose to not complete the course for a grade then your only option is to drop the course and receive a grade of W by the University deadline for dropping a course. If you choose to drop this course, you MUST also drop the lecture, since they are co-requisites.

**Disability Policy:** In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in Downing University Center, A-201, telephone 270-745-5004 V/TDD. Please do not request accommodations directly from me without a letter of accommodation from the Office for Student Disability Services.

**Classroom Policy**

• Food and drinks are NOT allowed in the classroom.

• Cell phones, pagers, and similar devices must be turned off and stored away during class time.

• The laboratory computers are for lab-related activities ONLY!
  - Do not install or modify any software on the lab computers.
  - Do not use the computers to check email during class time.
  - Do not use the computers to instant message or chat with anyone ever.
  - Do not submit or view homework assignments on Mastering Physics during class time.
  - Do not browse the internet during class time unless it is part of a class activity.