San José State University
Department of Physics and Astronomy
Physics 122: Modern Physics, Spring 2018

Instructor: Kiumars Parvin
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Office Hours: TR: 1100-1200, or by appointment.
Class Days/Time: TR 1200-1315
Classroom: SCI 319
Prerequisites: Physics 50, 51, 52

Course Description

In this course we will survey important topics in physics that have been developed since late 19th century. Topics include special theory of relativity, quantum mechanics, atomic and molecular physics, statistical physics and solid state physics. There will also be some reference to the historical development of these topics.

Homework

Homework assignments are important component of this class and students are strongly encouraged to do all homework sets completely. In order to keep up with the pace of class, the homework must be submitted to the instructor in class on due date. No late homework will be accepted.

Textbook

Course Goals and Student Learning Objectives

Upon completion of this course you are expected to be able to describe various experiments that were developed in Modern Physics and to work out associated problems that are the theoretical foundations of these developments. The learning objectives of individual topics covered in class are also posted on the instructor’s website.

Classroom Attendance and Class Discussion Participation

Class attendance is strongly recommended. It is always very helpful that you read materials to be covered in class in advance even if you do not fully understand them. All students are required to participate in class discussions and, your review of class material in advance will help on this activity.

Lecture PowerPoint Slides

These slides are posted in advance on instructor’s website and students may print and bring them to class. They could also be a good source of study before discussion of individual topics in class.

Grading Policy

We will have two midterm exams and a comprehensive final exam. The semester grade will be calculated based on the following format:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
</tr>
<tr>
<td>First Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>Second Midterm</td>
<td>25%</td>
</tr>
<tr>
<td>Comprehensive Final Exam</td>
<td>30%</td>
</tr>
</tbody>
</table>

The firm date of final exam and tentative dates of midterms are given in the schedule of lectures.

The semester letter grade is assigned based on the following format.

<table>
<thead>
<tr>
<th>Minimum Score</th>
<th>93</th>
<th>89</th>
<th>85</th>
<th>81</th>
<th>77</th>
<th>73</th>
<th>69</th>
<th>65</th>
<th>61</th>
<th>58</th>
<th>55</th>
<th>&lt;55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Grade</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td>C</td>
<td>C-</td>
<td>D+</td>
<td>D</td>
<td>D-</td>
<td>F</td>
</tr>
</tbody>
</table>

University Policies

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current
academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

Consent for Recording of Class and Public Sharing of Instructor Material

University Policy S12-7, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course and the following items to be included in the syllabus:

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
  - It is suggested that the greensheet include the instructor’s process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis.
  - In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.
- “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

Academic Integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University’s Academic Integrity policy, located at http://www.sjsu.edu/senate/S07-2.htm, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sa.sjsu.edu/judicial_affairs/index.html.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Policy S07-2 requires approval of instructors.
Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Disability Resource Center (DRC) at http://www.drc.sjsu.edu/ to establish a record of their disability.