Syllabus

Instructor: Prof. Carmen S. Menoni
Email: carmen.menoni@colostate.edu; csmenoni@gmail.com (Subject line should contain ECE 471 A)

Class times: TR 9.30-10.50 AM
Office hours: TR 8.30 – 9.30 AM or by appointment


Course Description: This course introduces basic concepts of semiconductor physics which are needed for the understanding of the operation and limitations of semiconductor devices

Course credits: 1
Course pre-requisites: PH142; MATH340 or MATH345

Grading and exams:

| quizzes; at the end of chapter 2 and chapter 4 | 85% |
| Final Exam on Thursday Friday 20, 2020         |     |
| In class problems discussion                  | 15% |

Homework will be assigned once a week. It will not be graded. There will be discussion on the homework in class and this will be graded.

Quizzes: There will be 2 quizzes at the end of chapter 2 and 4. These will be opened notes and book but not homework.

Final exam: Comprehensive; in class, open notes and book. Not opened homework.
Course Outline

Material for the class will be stored in CANVAS

Course Outline:

<table>
<thead>
<tr>
<th>No. lectures</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chapter 1 The crystal structure of solids</td>
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<tr>
<td>1</td>
<td>Chapter 2 Introduction to Quantum Mechanics</td>
</tr>
<tr>
<td>2</td>
<td>Chapter 3 Introduction to the Quantum Theory of Solids</td>
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<tr>
<td>2</td>
<td>Chapter 4 The semiconductor in equilibrium</td>
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<tr>
<td>2</td>
<td>Chapter 5 Carrier Transport Phenomena</td>
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The pace of this class requires students to read each chapter ahead before they are discussed in class.

Class Etiquette  Phones and other electronic devices must be turned off at the beginning of the class and remain off during the duration of the class.