ECE 615: Semiconductor Devices I
MW 10:00-11:20 am, KIDD 278
Winter 2013

Instructor: Dr. A. X. Wang (737-4247, KEC 3097, wang@eecs.oregonstate.edu)
Office hours: M & W, 11:30am-12:30pm, 3097 KEC or by appointment.

Recommended Prerequisites:
1. ECE 317 Intro to Semiconductor and Semiconductor Devices Physics, or equivalent
2. ECE 417/517 Basic Semiconductor Devices, or equivalent
3. ECE 514 Advanced Semiconductor Physics


Other useful texts:

Course Outline: Discussion of the following topics is planned

<table>
<thead>
<tr>
<th>Topic</th>
<th>Reading</th>
<th>Approx. # lectures</th>
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<tbody>
<tr>
<td>1. p-n junctions</td>
<td>Sze &amp; Ng Ch. 2</td>
<td>7</td>
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<td>2. Metal Semiconductor Contacts</td>
<td>Sze &amp; Ng Ch. 3</td>
<td>3</td>
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<td>3. MOS capacitors</td>
<td>Sze &amp; Ng Ch. 4</td>
<td>4</td>
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<td>4. Heterojunctions</td>
<td>Sze &amp; Ng pg. 124-9</td>
<td>3</td>
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</tbody>
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Grading (exams are closed book / closed notes; bring calculator):

1. Homework (5 sets)                         35%
2. Midterm (in class, Feb. 4th)             30%
3. Final (comprehensive, Wednesday, March 20th, 9:30-11:30 AM, KIDD 278) 35%

Misc.
1. Class will follow loosely the flow of Sze & Ng.
2. There may not be enough time to cover all the above topics.
3. Cell phones may not be used during lectures (this includes texting, etc.). Please turn computers off unless you are using them to take notes on the lecture. Your cooperation is appreciated.