Course Syllabus

Course: Integrated Circuits for Communications
Instructor: Prof. Ali Niknejad, 572 Cory Hall, 2-0459, niknejad@eecs
GSI: Zhiming Deng, dengzm@eecs
Class Schedule: TuTh 11:00-12:30 PM, 3113 Etcheverry
Office Hours: MTh 10-11 AM
Website: http://inst.eecs.berkeley.edu/~ee142

Grading Policy:

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<thead>
<tr>
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<th>Undergraduate</th>
<th>Graduate</th>
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<tr>
<td>Homework</td>
<td>25%</td>
<td>20%</td>
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<tr>
<td>Midterm</td>
<td>35%</td>
<td>30%</td>
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<td>Final</td>
<td>40%</td>
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<tr>
<td>Project</td>
<td>15%</td>
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Description: Analysis and design of electronic circuits for communication systems, with an emphasis on integrated circuits for wireless communication systems. Analysis of distortion and noise in amplifiers with application to radio receiver design. Power amplifier design with application to wireless radio transmitters. Radio-frequency mixers, oscillators, phase-locked loops, modulators, and demodulators.

Optional Textbooks:

The following references are helpful and will be on two-hour reserve at the Bechtel Engineering Library:


Software:

SPICE simulations will be performed weekly and for the projects. Instructional accounts are available with access to spectre and spectreRF.