ELEC 380 - Electronic Circuits II

Term - FALL 2014 (201409)

Instructor
Dr. Mihai Sima
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E-mail: msima@ece.uvic.ca

Office Hours
Days: Wednesday
Time: 1:30pm - 3:30pm
Location: EOW 313

Lectures
A-Sections: A01/A02 - CRN 11232/11233
Days: Monday, Thursday
Time: 8:30am - 10:00am
Location: CLE-A127

Labs
B-Section(s): Days: Time(s):
B01 Monday 12:00pm – 3:00pm
B02 Thursday 12:00pm – 3:00pm
B03 Monday 3:00pm – 6:00pm
B04 Thursday 3:00pm – 6:00pm

Location: ELW

Required Text
Title: Analysis and Design of Analog IC
Author: Gray & Meyer
Publisher: Wiley
Edition: preferably 4th or 5th

Optional Text
Title: Course Notes available online
Author: Mihai Sima

Title: Lab Manual available online
Author: Adam Zielinski

Assessment:
Assignments: 10%
Labs: 20%
Mid-term: 20% Date: November 06, 2014
Final: 50%

Note: Failure to complete all laboratory requirements will result in a grade of N being awarded for the course.

Due Dates for Assignments: TBD
The final grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

<table>
<thead>
<tr>
<th>Passing Grades</th>
<th>Grade Point Value</th>
<th>Percentage for Instructor Use Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>9</td>
<td>90 - 100</td>
</tr>
<tr>
<td>A</td>
<td>8</td>
<td>85 - 89</td>
</tr>
<tr>
<td>A-</td>
<td>7</td>
<td>80 - 84</td>
</tr>
<tr>
<td>B+</td>
<td>6</td>
<td>77 - 79</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>73 - 76</td>
</tr>
<tr>
<td>B-</td>
<td>4</td>
<td>70 - 72</td>
</tr>
<tr>
<td>C+</td>
<td>3</td>
<td>65 - 69</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>60 - 64</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>50 - 59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Failing Grades</th>
<th>Grade Point Value</th>
<th>Percentage for Instructor Use Only</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>0</td>
<td>0 - 49</td>
<td>Fail, *Conditional supplemental exam. (For undergraduate courses only)</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0 - 49</td>
<td>Fail, no supplemental.</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0 - 49</td>
<td>Did not write examination, Lab or otherwise complete course requirements by the end of term or session; no supplemental exam.</td>
</tr>
</tbody>
</table>

*Assignment of E grade will be at the discretion of the Course Instructor.*

The rules for supplemental examinations are found on page 80 of the current 2014/15 Undergraduate Calendar.

<table>
<thead>
<tr>
<th>Term in which E Grade Was Obtained</th>
<th>Application Deadline for Supplemental Exam</th>
<th>Supplemental Exam Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>First term of Winter Session (Sept – Dec)</td>
<td>February 28 in the following term</td>
<td>First week of following May</td>
</tr>
<tr>
<td>Second term of Winter Session (Jan – Apr)</td>
<td>June 30 in the following term</td>
<td>First week of following September</td>
</tr>
<tr>
<td>Summer Session (May – Aug)</td>
<td>October 31 in the following term</td>
<td>First week of following January</td>
</tr>
</tbody>
</table>

Deferred exams will normally be written at the start of the student's next academic term; i.e., approximately 4 months following the deferral of the exam.
Course Description
1. Course Objectives
   - Make students understand what the design challenge is
   - Show students where to look for information and how to read it
   - Present analog design techniques and how to use them efficiently
   - Expose students to Lab equipment and analog measurements
   - Present a literature digest for the analog design domain

2. Learning Outcomes
   - Ability to analyze and design analog circuits in standard configurations
   - Ability to use circuit simulators

3. Syllabus
   - Material review (bipolar & field-effect transistors, single-stage amplifiers)
   - Large signal amplifiers; Distortion
   - Frequency response of transistor amplifiers
   - Current sources
   - Differential amplifiers
   - Negative feedback
   - Ideal and non-ideal operational amplifier
   - Oscillators and timers
   - Electrical characteristics of bipolar and MOS logic families
   - Operational amplifiers and applications

Note to Students:
Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the ECE Chair by email or the ECE Chair's Secretary eceasst@uvic.ca to set up an appointment.

Accommodation of Religious Observance
See http://web.uvic.ca/calendar2014/GI/GUPo.html

Policy on Inclusivity and Diversity
See http://web.uvic.ca/calendar2014/GI/GUPo.html

Standards of Professional Behaviour
You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at http://www.uvic.ca/engineering/current/undergrad/index.php#section0-25 which contains important information regarding conduct in courses, labs, and in the general use of facilities.

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult http://web.uvic.ca/calendar2014/FACS/UnIn/UARe/PoAcI.html for the UVic policy on academic integrity.