



## **ELEC 380 - Electronic Circuits II**

**Term - FALL 2014 (201409)**

### **Instructor**

Dr. Mihai Sima  
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### **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>B-Section(s):</b>	<b>Days:</b>	<b>Time(s):</b>
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:  
Author:  
Publisher:  
Year:

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:**

<b>Passing Grades</b>	<b>Grade Point Value</b>	<b>Percentage for Instructor Use Only</b>	
A+	9	90 - 100	
A	8	85 - 89	
A-	7	80 - 84	
B+	6	77 - 79	
B	5	73 - 76	
B-	4	70 - 72	
C+	3	65 - 69	
C	2	60 - 64	
D	1	50 - 59	
<b>Failing Grades</b>	<b>Grade Point Value</b>	<b>Percentage for Instructor Use Only</b>	<b>Description</b>
E	0	0 - 49	Fail, *Conditional supplemental exam. (For undergraduate courses only)
F	0	0 - 49	Fail, no supplemental.
N	0	0 - 49	Did not write examination, Lab or otherwise complete course requirements by the end of term or session; no supplemental exam.

*\*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.

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

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](mailto: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/PoAcl.html> for the UVic policy on academic integrity.