COURSE CALENDAR DESCRIPTION
This course focuses on the analysis and design of analog integrated circuit in CMOS technology. It covers
the aspects of circuit design from single transistor operation to complex amplifiers and layout techniques as
well as the process and modeling background. Three lecture hours per week and 3 laboratory hours per week.
Prerequisites: General Prerequisite; LE/EECS 2030 3.00 or LE/EECS 1030 3.00; LE/EECS 2210 3.00.
(NOTE: The General Prerequisite is a cumulative GPA of 4.50 or better over all major EECS courses. EECS
courses with the second digit “5” are not major courses.)

INSTRUCTOR(S)

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<tr>
<th>Name</th>
<th>Section / Format / Term</th>
<th>Contact Email</th>
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<tbody>
<tr>
<td>Lian, Yong Peter</td>
<td>Sec. Z / LECT / W</td>
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TOPICS AND CONCEPTS
Topics covered in the course will be selected from the following list:
• Introduction to analog design
• Basic MOS device physics
• Single stage amplifiers
• Layout and design rules
• Differential amplifiers
• Passive and active current mirrors
• Frequency response of amplifiers
• Noise
• Feedback
• Operational amplifiers

LIST OF LEARNING OUTCOMES AND EXAMPLES OF
Learning Outcomes
After successful completion of the course, students are expected to be able to:
• To analyze the characteristics of basic analog integrated circuits
• To formulate the behavior of basic analog circuits by inspection
• To perform circuit simulation using computer-aided tool
• To draw layout based on given design rules

GRADED ASSESSMENT
The weight distribution of the course components is as follows:
• Assignments: 10 %
• Quiz: 15%
• Lab: 25%
• Midterm test: 20%
• Final exam: 30%

ADDITIONAL INFORMATION

You will require the following textbook for this course:

ACADEMIC INTEGRITY LINKS
• Senate Policy on Academic Honesty - http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/
• Academic Integrity - http://lassonde.yorku.ca/academic-integrity

STUDENT LINKS
• Student Rights and Responsibilities - http://oscr.students.uit.yorku.ca/student-conduct
• Religious Observance - https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs
• Academic Accommodation for Students with Disabilities - http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/
• Counselling and Disability Services - http://cds.info.yorku.ca/

Many courses utilize Moodle, York University's course website system. If your course is using Moodle, click here to access it.
Moodle @ York University