ECE 250 – Linear Circuits I
Term – Summer 2019 (201905)

Instructor: Dr. Tao Lu
Office Hours:
Days: Monday
Time: 13:30-17:00
Location: EOW 321

Course Objectives
To introduce the mathematical techniques and application skills needed to analyze, design, and make laboratory measurements on linear electric circuits.

Learning Outcomes
1. Use Ohm’s law and Kirchhoff laws to analyze resistive circuits.
2. Use network theorems (including mesh currents and node voltages) to analyze resistive circuits.
3. Solve $1^{st}$ and $2^{nd}$ order RC and RL circuits.
4. Use phasors to perform AC analysis.
5. Assess series and parallel resonance and calculate AC power.
6. Solve 3Phase circuits with YF and DeltaF loads.
7. Demonstrate communication skills through lab reports documenting experiential work carried out in a laboratory environment.
8. Demonstrate ability to work as member of a team documenting this through lab reports and interaction with the lab demonstrator.

Syllabus
2. Introduction to first and secondorder differential equations.

These topics are covered in Chapters 1,2,3,4,6,7,8,9,10 and 11 in your book.

A-Section(s): A01 / CRN 30259
Days: MR
Time: 11:30-12:50
Location: DTB A120

T-Section(s): T01/CRN 30269
Days: F
Time: 15:30-16:20
Location: ECS 125
Tutorial Instructor: Amirhossein Alizadeh Khaledi
Email: alizadeh.amirhossein1@gmail.com
B-Section(s):
B02 M/14:30-17:20 Sara Salem Hesari(sarasalem2003@gmail.com)
B06 T/13:30-16:20 Lok In Liang(ansonlogin@gmail.com)
B08 T/13:30-16:20 Avneet Kaur Kahlon(avneetkahlon18@gmail.com)
B10 W/13:30-16:20 Xue Cai(xuecai@uvic.ca)
B12 W/13:30-16:20 Babak Esgandarnejad(babakes@uvic.ca)
B13 R/13:30-16:20 Anusha Venkataraman(anushav@uvic.ca)
B15 R/13:30-16:20 Gagandeep Kaur(gagandeepkaur@uvic.ca)

Required Text
Title: Electric Circuits (plus Mastering Engineering)
Author: J. W. Nilsson and S. A. Riedel
Publisher: Pearson (11th Edition)
Year: 2019

References:

Assessment:
Assignments: 10% Due Dates: two weeks after each assignment is available
Labs 20%
Mid-term 20% Date: Sat. Jun. 24
Final Exam 35%
Quizzes 10%
Pop Quizzes 5%

Note:
The final grade obtained from the above marking scheme for the purpose of GPA calculation will be based
on the percentage-to-grade point conversion table as listed in the current Undergraduate Calendar.
https://web.uvic.ca/calendar2019-05/undergrad/info/regulations/grading.html

There will be no supplemental examination for this course.
https://web.uvic.ca/calendar2019-05/undergrad/info/regulations/exams.html#

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
Chair of the Department by email or the Chair’s Assistant to set up an appointment.

Accommodation of Religious Observance:
https://web.uvic.ca/calendar2019-05/undergrad/info/regulations/religious-observanc.html

Policy on Inclusivity and Diversity:
https://web.uvic.ca/calendar2019-05/general/policies.html

Standards of Professional Behaviour: You are advised to read the Faculty of Engineering document
Standards for Professional Behaviour, which contains important information regarding conduct in courses,
labs, and in the general use of facilities.
https://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf
Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult the entry in the current Undergraduate Calendar for the UVic policy on academic integrity.

https://web.uvic.ca/calendar2019-05/undergrad/info/regulations/academic-integrity.html

**Equality:** This course aims to provide equal opportunities and access for all students to enjoy the benefits and privileges of the class and its curriculum and to meet the syllabus requirements. Reasonable and appropriate accommodation will be made available to students with documented disabilities (physical, mental, learning) in order to give them the opportunity to successfully meet the essential requirements of the course. The accommodation will not alter academic standards or learning outcomes, although the student may be allowed to demonstrate knowledge and skills in a different way. It is not necessary for you to reveal your disability and/or confidential medical information to the course instructor. If you believe that you may require accommodation, the course instructor can provide you with information about confidential resources on campus that can assist you in arranging for appropriate accommodation. Alternatively, you may want to contact the Centre for Accessible Learning located in the Campus Services Building.

The University of Victoria is committed to promoting, providing, and protecting a positive, and supportive and safe learning and working environment for all its members.

**Course Lecture Notes:** Unless otherwise noted, all course materials supplied to students in this course have been prepared by the instructor and are intended for use in this course only. These materials are NOT to be re-circulated digitally, whether by email or by uploading or copying to websites, or to others not enrolled in this course. Violation of this policy may in some cases constitute a breach of academic integrity as defined in the UVic Calendar.

**Sexualized Violence Prevention and Response at UVic**

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting [www.uvic.ca/svp](http://www.uvic.ca/svp). If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:

**Where:** Sexualized violence resource office in EQHR; Sedgewick C119
**Phone:** 250.721.8021
**Email:** svpcoordinator@uvic.ca
**Web:** [www.uvic.ca/svp](http://www.uvic.ca/svp)