University of Toronto
Edward S. Rogers Sr. Dept. of Electrical & Computer Engineering
ECE 110H1 SU (summer) – Electrical Fundamentals – 2016
Course Management Form

Instructor: Dr. Hamid Timorabadi, P. Eng.
Email: h.timorabadi@utoronto.ca

Criteria for Emails:

- Subject area of the email should include course name and intention, e.g.
  - ECE110: Mark Error

Office Hours:

- Best time to ask question is after the lectures, or
- Wednesdays 11 AM in lecture room.

Lectures:

• Wednesdays	9 – 11 AM	BA1210
• Thursdays	4:30 - 6:30 PM	BA1210
• Fridays	9 - 11 AM	BA1210

Course Description

A study of the physics of electricity and magnetism: Coulomb's law, Gauss' laws, Biot-Savart's law, Ampere's law, Faraday's law, potentials and energy. An introduction to circuit analysis: resistive circuits; nodal and mesh analyses; Thevenin and Norton theorems; first-order RC and RL circuits and sinusoidal steady-state analysis of AC circuits.

Textbook

Custom print - **Electrical Fundamentals**: (selected chapters) Fundamentals of Physics by D. Halliday, R. Resnick, J. Walker (10th ed., Wiley, 2014) and Basic Engineering Circuit Analysis by J.D. Irwin, R.M. Nelms (10th ed., Wiley, 2011).

- Option 1: hardcopy text with WileyPLUS **ISBN: 9781119061434**
- Option 2: WileyPLUS **ISBN: 9781119060697**

Tutorials

A weekly tutorial will provide the students with the opportunity to review the material covered in lectures, and discuss some end of chapter problems. Tutorials start on **Wednesday May 18**.

Thursdays 6:30-8:30 PM BA1210
TUT0101: TA: Fahimeh Kazempour f.kazempour@mail.utoronto.ca

Thursdays 6:30-8:30 PM BA2185
TUT0102: TA: Ali Ramezanikebrya aramezani@ece.utoronto.ca

There will be a quiz during the tutorials as scheduled in the following Table.

May 26	Quiz #1
June 02	Quiz #2
June 09	Quiz #3
June 16	Quiz #4

Laboratory

The laboratory sessions will be held in the Instrumentation Lab (GB341). Each student is expected to maintain a bound lab book that includes the preparation and documentation of all work done in the laboratory. The lab book is to be updated continually during each lab session and to include all measured data, tables, graphs, and descriptions of relevant measurement techniques, computation, and conclusions. The lab book will be evaluated by a teaching assistant during each lab session. There are **five** laboratory sessions starting start on **Friday May 20**. During the first lab session, students will have the option of choosing their own lab partners from the same lab section (groups of two students).

Lab Location: GB341
Lab Hours: 11 AM- 1 PM
TAs:

- Ali Ramezani-Kebrya: aramezani@ece.utoronto.ca
- Sadegh Dadash: sadegh.dadash@mail.utoronto.ca
- Wanyu Lin: wylin@ece.utoronto.ca
- Fahimeh Kazempour f.kazempour@mail.utoronto.ca
- Wilfred Cho wilfredcho@gmail.com

Lab Schedules

May 20	Introductory Lab	Equipment Exploration
May 27	Experiment #1	Electrical Charges
June 03	Experiment #2	Magnetism and Induction
June 10	Experiment #3	DC Circuits
June 17	Experiment #4	AC Measurements

Mark Distribution:

Laboratories	20%
Quizzes	30%
Final Exam	50%
Total	100%

Quizzes/Final Exam Type

Type: A (closed-book)
Calculator: Casio FX-991MS or Sharp EL-520X

Missed quizzes or laboratories. If you miss a test or a laboratory session, consideration will be given as follows, provided your petition (submitted online) is approved.

- If you missed any of the first 4 labs and your petition is approved, then you are provided with a makeup lab.
- If you miss lab #5 then your average lab mark will be calculated based on the previous 4 labs.
- If you miss a quiz and your petition is approved, your average quiz mark will be calculated based on the other quizzes.
- If you missed any lab or test without a petition, or your petition is not approved, a zero mark will be recorded for that component.