Faculty of Engineering
COURSE OUTLINE

ELEC 488 - Electrical Power Systems

Term – Spring 2016 (201601)

Instructor
Dr. Ali Moshref
Phone: 778-688-7435
E-mail: ali.moshref@bba.ca

Office Hours
Days: Tuesday
Time: 1:00-2:00 PM
Location: ELL 061

Course Objectives
The objective of this course is to provide a basic understanding in the planning, design, analysis and operation of electrical power systems

Learning Outcomes
By the end of the course, each student should be able to identify the elements of a power system, model power system components such as transmission lines, synchronous generators, loads, etc. Understand the need for power flow studies, understand the effect of faults in a power system, and appreciate the significance of power system harmonics and transient stability

Syllabus
Principles of electric power systems, three-phase salient and round rotor synchronous machines, three-phase transformer, transmission line parameters, admittance model, impedance model, network calculations, power-flow solution, symmetrical components and sequence networks, symmetrical faults, unsymmetrical faults, harmonics calculations. Basics of power systems stability and protection, load frequency control, HVDC transmission.

A-Section(s): A01 / CRN 21175
B01/ CRN 21176
TA (email)
Days: Tuesday
Time: 14:30-17:20
Location: ELL 061

Required Text
Title: Power System analysis and design
Author: J.D. Glover, M.S. Sarma, T. Overbye
Publisher: CENGAGE Learning, 2012
Year: 2012
References:

Assessment:

Assignments: 10%
Labs 0%
Mid-term 30%  Date: March 1
Final Exam 50%
Minimum attendance required 10%  (seven lectures)

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.

There will be no supplemental examination for this course.

Assignment of E grade and supplemental examination for this course will be at the discretion of the Course Instructor. The rules for supplemental examinations can be found in the current Undergraduate Calendar.

http://web.uvic.ca/calendar/FACS/UnIn/UARe/Grad.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 Secretary to set up an appointment.

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

Policy on Inclusivity and Diversity
http://web.uvic.ca/calendar/GI/GUPo.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.

http://web.uvic.ca/calendar/FACS/UnIn/UARe/PoAcI.html

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.