UVic Department of Electrical and Computer Engineering

COURSE OUTLINE
ELEC 488 – Electrical Power Systems
Spring 2014

Instructor:

Dr. Ali Moshref
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Office Hours:

Days: Saturday
Time: 9:00-1:00
Location: TBD

Lectures:

A-Section(s): A01 / CRN 23956
Days: Saturday
Time: 9:30-12:20
Location: ECS 104

Labs: **Location: ELW**

B-Section(s) Days Time

Required Text:

Title:
Author:
Publisher:
Year:

Optional Text:

Title: POWER SYSTEM ANALYSIS AND DESIGN
Author: J. D. Glover, M. S. Sarma, T. Overbye
Publisher: Course Technology
Year: Jan. 3 2011

References:

Assessment:

Assignments:	20%	
Labs	%	
Mid-term	30%	Date:TBD
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:

Passing Grades	**Grade Point Value**	**Percentage for Instructor Use Only**	
A+ A A-	9 8 7	90 – 100 85 – 89 80 – 84	
B+ B B-	6 5 4	77 – 79 73 – 76 70 – 72	
C+ C	3 2	65 – 69 60 – 64	
D	1	50 – 59	
Failing Grades	**Grade Point Value**	**Percentage for Instructor Use Only**	**Description**
E	0	35 - 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.

The rules for supplemental examinations are found on page 80 of the current 2013/14 Undergraduate Calendar.

Term in which E Grade Was Obtained	**Application Deadline for Supplemental Exam**	**Supplemental Exam Date**
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: The objective of this course is to provide a basic understanding in the planning, design, analysis and operation of electrical power systems.
2. 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 stability
3. 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 faults, symmetrical components and sequence networks, unsymmetrical faults, economic dispatch. Basics of power systems stability and protection, load frequency control, HVDC transmission, design projects using power system simulator software.

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 to set up an appointment.

Accommodation of Religious Observance
See http://web.uvic.ca/calendar2013/GI/GUPo.html

Policy on Inclusivity and Diversity
See http://web.uvic.ca/calendar2013/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/calendar2013/FACS/UnIn/UARe/PoAcI.html for the UVic policy on academic integrity.

Plagiarism detection software may be used to aid the instructor and/or TA's in the review and grading of some or all of the work you submit.