



COURSE OUTLINE

ELEC 466/568 – SOC Engineering

Summer 2014

Instructor:

Dr. Daler Rakhmatov
Phone: 250-472-5214
E-mail: daler@ece.uvic.ca

Office Hours:

Days: T
Time: 13:30-15:00
Location: EOW 327

Lectures:

A-Section(s): A01 / CRN 30317
Days: TWF
Time: 10:30-11:20
Location: ECS 104

Labs:

B-Section(s)
B01

Location: ELW B326

Days	Time
R	14:30-17:20

Required Text:

Title: N/A
Author:
Publisher:
Year:

Optional Text:

Title:
Author:
Publisher:
Year:

References: Course website <http://www.ece.uvic.ca/~daler/courses/elec466>.

Assessment:

Assignments:	15% (10% for ELEC 568)
Project:	25%
Mid-term	20%
Final	40%
Presentation	5% (only for ELEC 568)

Date: June 27 (tentative).

Note: Failure to complete all laboratory requirements will result in a grade of N being awarded for the course.

Due dates for assignments:

TBA

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+	9	90 – 100	
A	8	85 – 89	
A-	7	80 – 84	
B+	6	77 – 79	
B	5	73 – 76	
B-	4	70 – 72	
C+	3	65 – 69	
C	2	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. Students will learn basic concepts and techniques related to modeling, design, testing, and power management of SOC.
2. Learning Outcomes. Students will be able to: (1) discuss key challenges and solutions associated with SOC design and test, (2) discuss key challenges and solutions associated with SOC energy consumption, (3) use the specify-explore-refine methodology and SystemC modeling language for hardware-software SOC design, (4) analyze the behavior of discrete-event simulation models, (5) apply energy management techniques to improve SOC efficiency.
3. Syllabus (tentative):
 - SOC technology roadmap and key issues (3);
 - Model-based SOC design with SystemC (18);
 - SOC self-test and power management (9);
 - SOC architectures and applications (6).

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/calendar2014/GI/GUPo.html>

Policy on Inclusivity and Diversity

See <http://web.uvic.ca/calendar2014/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/calendar2014/FACS/UnIn/UARe/PoAcI.html> for the UVic policy on academic integrity.

<p>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.</p>
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