University of Victoria Engineering

Faculty of Engineering

COURSE OUTLINE

ELEC 403 Engineering Design by Optimization

Term – Summer 2017 (201705)

Instructor

Dr. Wu-Sheng Lu
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Office Hours

Days: Wednesdays
Time: 14:00 – 16:00
Location: EOW 427

Course Objectives

To understand fundamental principles and basic algorithms for unconstrained optimization problems encountered in engineering analysis and designs.

Learning Outcomes

Ability to analyze and formulate typical engineering analysis/design problems as optimization problems; and apply appropriate algorithms to obtain and evaluate optimal solutions to the problems at hand.

Syllabus

A-Section: A01 / CRN 30333	B01 Tuesdays (May 30, Jun. 13, Jun. 27, Jul. 18) 2:00-4:50pm ELW B220
Days: TWF	TA for B01: TBA
Time: 12:30-13:20	B02 Tuesdays (Jun 6, Jun. 20, Jul. 11, Jul. 25) 2:00-4:50pm ELW B220
Location: ECS 108	TA for B02: TBA

Required Text

Title: Practical Optimization: Algorithms and Engineering Applications
Authors: A. Antoniou and W.-S. Lu

Publisher: Springer
Year: 2007

Assignments	10%	
Labs	15%	
Mid-term	20%	Date: June 27, Tuesday.
Final Exam	55%	

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

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.

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/calendar2017-05/undergrad/info/regulations/grading.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/calendar2017-05/general/policies.html

Policy on Inclusivity and Diversity: http://web.uvic.ca/calendar2017-05/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.
http://web.uvic.ca/calendar2017-05/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 Resource Centre for Students with a Disability 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.