



### CENG 242 – Discrete Structures in Engineering

Term – SUMMER 2015 (201505)

#### Instructor

Dr. Daler N. Rakhmatov  
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#### Office Hours

Days: Tue  
Time: 13:00-14:30  
Location: EOW 327

#### Course Objectives

Students will learn about: (1) basic discrete algebraic structures and their applications in electrical and computer engineering, and (2) basic discrete optimization algorithms and their applications in electrical and computer engineering.

#### Learning Outcomes

Students will be able to: (1) describe and use basic structures to formulate engineering problems, (3) analyze linear transfer-function/state-variable and graph models arising in related engineering problems, (4) solve linear recurrences and linear programs arising in related engineering problems, (5) apply basic graph algorithms and branch-and-bound search to solve related engineering problems.

#### Syllabus (tentative)

- Survey of basic discrete structures (9);
- Applications of basic discrete structures in electrical and computer engineering (9);
- Survey of basic algorithms acting on discrete structures (9);
- Applications of basic algorithms in electrical and computer engineering (9).

A-Section(s): A01-A02 / CRN 30092-30093

Days: TWF

Time: 9:30-10:20

Location: Clearihue A202

#### Required Text

Title: N/A  
Author: N/A  
Publisher: N/A  
Year: N/A

#### Optional Text

Title: N/A  
Author: N/A  
Publisher: N/A  
Year: N/A

**References:** Course website <http://www.ece.uvic.ca/~daler/courses/ceng242>

**Assessment:**

Assignments:	25%	Due Dates: TBA
Mid-term	20%	Date: June 26 (tentative)
Final Exam	55%	

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/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 in current Undergraduate Calendar, 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 entry in current Undergraduate Calendar for the UVic policy on academic integrity.

<http://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf>

**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.