ELEC 460 – Control Theory and Systems II
Spring 2016 (201601)

(see also: http://www.ece.uvic.ca/~panagath/ELEC460/ELEC460.html)

Instructor: Dr. Pan Agathoklis
Office Hours: Days: Wednesdays
Phone: 721-8618
Time: 10:00 a.m. – 12:00 noon
E-mail: panagath@ece.uvic.ca
Location: EOW 423

Lectures:
A-Section(s): AO1/CRN 21163, AO2/CRN 21164
Days: Mondays and Thursdays
Time: 8:30 – 9:50 a.m.
Location: COR A225

Extra Lectures:
Wednesday, January 13, 2:30-4:00pm in ECS104
There will be no lecture on February 4.

Required Text:
Title: Discrete Time Control Systems
Author: K. Ogata
Publisher: Prentice-Hall
Year: 1995

Due dates for assignments: see http://www.ece.uvic.ca/~panagath/ELEC460/ELEC460.html

Course Description

Learning Outcomes
1. Apply z-Transform to solve difference
2. Discuss description of discrete systems using transfer functions and state-space description
3. Analyse stability, transient and steady state system response
4. Demonstrate the digital implementation of lead and lag compensators
5. Analyse controllability and observability for systems in state space description
6. Design linear state feedback controllers using pole-placement
7. Apply state observers for state estimation of linear systems in state-space description

Assessment:
Assignments: 5%
Mid-term 35% Date: Thursday, February 1, 2016
Final 60%
For graduate students see http://www.ece.uvic.ca/~panagath/ELEC460/ELEC460.html#Assessment
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, 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.