Faculty of Engineering | Electrical and Computer Engineering
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University of Victoria

COURSE OUTLINE

ECE356 – Engineering System Software

Term – FALL 2019 (201909)

Instructor	**Office Hours**
Zahra Nikdel	Days: Tuesdays
Phone: +1-250-721-2757	Time: 10-12
E-mail: nikdel@uvic.ca	Location: EOW 419

Course Objectives

• To apply software requirement and design processes in the implementation of software components in electrical and computer engineering systems

• To apply engineering system software concepts to portable devices, embedded systems, real-time systems, and multi-processor systems

Learning Outcomes

• Able to understand the role of system software, security and privacy issues, and their synergy with hardware and applications in engineering systems

• Able to use and extend fundamental system software concepts in embedded and real-time engineering applications

• Able to identify potential hazards and apply system software principles to solve unique electrical and computer engineering problems in various domains (e.g., mechatronics, signal processing)

• Able to follow proper and rigorous system software development process in general and unique engineering systems and situations

Syllabus

System software principles, components, usage, protection, and their relation to hardware and engineering systems. Modern operating systems characteristics and engineering applications; portable operating system interface standard. Requirements, design, development, and maintenance of complex software for portable devices, real-time systems, and multi-processor systems.

A-Section(s): A01 / CRN 10953
Days: MTH
Time: 11:30-12:50
Location: Clearihue Building C109

Recommended Textbook

Title: Modern Operating Systems	Title: Computer Systems: An Integrated Approach to Architecture and Operating Systems
Author: Andrew S. Tanenbaum and Herbert Bos	Author: Ramachandran and Leahy Jr.
Publisher: Pearson Ltd.	Publisher: Addison Wesley
Year: 2015	Year: 2011

References: Lecture notes and article reprints available on Course Web

Assessment:

Assignments:	20%	Due Dates: Oct 10th , Nov 25th
Project:	20%	
Midterm1	20%	Date: Thursday, Oct 24th
Final Exam	40%	

Note: 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.

https://web.uvic.ca/calendar2019-09/undergrad/info/regulations/grading.html

There will be no supplemental examination for this course.

https://web.uvic.ca/calendar2019-09/undergrad/info/regulations/exams.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 Assistant to set up an appointment.

Course Withdrawal Deadlines:
- September 17: Withdrawal with 100% reduction of tuition fees
- October 8: Withdrawal with 50% reduction of tuition fees
- October 31: Last day for withdrawal (no fees returned)

Accommodation of Religious Observance:
https://web.uvic.ca/calendar2019-09/undergrad/info/regulations/religious-observanc.html

Policy on Inclusivity and Diversity:
https://web.uvic.ca/calendar2019-09/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.
https://web.uvic.ca/calendar2019-09/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 an appropriate accommodation. Alternatively, you may want to contact the Centre for Accessible Learning located in the Campus Services Building.

The University of Victoria is committed to promoting, providing, and protecting a positive, 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.

Sexualized Violence Prevention and Response at Uvic:
UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:
> **Where:** Sexualized violence resource office in EQHR; Sedgewick C119
> **Phone:** 250.721.8021
> **Email:** svpcoordinator@uvic.ca
> **Web:** www.uvic.ca/svp

Office of the Ombudsperson:
The Office of the Ombudsperson is an independent and impartial resource to assist with the fair resolution of student issues. A confidential consultation can help you understand your rights and responsibilities. The Ombudsperson can also clarify information, help navigate procedures, assist with problem-solving, facilitate communication, provide feedback on an appeal, investigate and make recommendations. Phone: 250-721-8357; Email: ombuddy@uvic.ca; Web: https://uvicombudsperson.ca/