CENG 356 – Engineering System Software

Term – Fall 2016 (201609)

Instructor	**Office Hours**	
Zahra Nikdel	Days:	Mon, Wed
Phone: +1-250-721-2757	Time:	3:00-5:00 PM
E-mail: nikdel@uvic.ca	Location:	TBA

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 10452
Days: TWF
Time: 11:30-12:30
Location: David Strong Building C124

Required Text	**Recommended Text**
Title: Computer Systems An Integrated Approach to Architecture and Operating Systems	Title: Embedded Systems (2nd Edition)

Author:	Ramachandran and Leahy Jr.		Author:	Marwedel
Publisher:	Addison Wesley		Publisher:	Springer
Year:	2011		Year:	2011

References: Lecture notes and article reprints available on Course Web

Assessment:

Projects:	15%	Due date to be announced
Assignments:	15%(X5)	Due date to be announced
Midterm:	20%	Date: Oct 18 Tue, 2016
Final:	50%	Date: To be announced

<u>Note</u>:   **Failure to complete all course components will result in a grade of N being awarded 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.

There will be no supplemental examination for this course.

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/calendar2016-09/general/policies.html

Policy on Inclusivity and Diversity
http://web.uvic.ca/calendar2016-09/general/policies.html

Standards of Professional Behaviour
You are advised to read the Faculty of Engineering document <u>Standards for Professional Behaviour</u>, 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/calendar2016-09/undergrad/info/regulations/academic-integrity.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.