

# Faculty of Engineering COURSE OUTLINE

# ELEC 519B Selected Topics in Computer Communication - Broadband and Wireless Networks Term - Spring 2018 (201801)

InstructorOffice HoursDr. Lin CaiDays: Mon/ThuPhone:(250) 721- 8691Time: 14:30-16:00E-mail: cai@ece.uvic.caLocation: EOW317

# **Course Objectives**

- The goal of the course is to introduce the fundamental concepts, tools and methodologies in networking research, and how to apply them to solve practical and emerging problems.

# **Learning Outcomes**

- Multimedia traffic modeling, wireless channel modeling, radio resource management, mobility management, and end-to-end flow and congestion control

# **Syllabus**

- This course focuses on resource management and protocol design for transporting data and multimedia traffic in broadband and wireless communication networks. Topics include multimedia traffic modeling, wireless channel modeling, radio resource management, mobility management, and end-to-end flow and congestion control. The goal of the course is to introduce the fundamental concepts, tools and methodologies in networking research, and how to apply them to solve practical and emerging problems. Students are encouraged to investigate novel ideas in the area via course projects.

**A**-Section(s): A01 / CRN 21132; A02 / CRN 21133

Days: MR

Time: 10:00-11:20 Location: ELL160

# **Optional Text:**

Title: Multimedia services in wireless Internet: Modeling and analysis

Author: Lin Cai, Xuemin Shen and Jon W. Mark

Publisher: Wiley

Year: 2009

#### Reference:

M. Schwartz, Broadband Integrated Networks, Prentice Hall PTR, New Jersey, 1996, 0-13-519240-4.

#### **Assessment:**

Assignments: 20% Due Dates: Jan. 29, Feb. 19, Mar. 12, Mar. 22

Presentation: 20%

Quiz: 15% Date: April 5, 2017

Project: 45%

#### Note:

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 Graduate Calendar. https://web.uvic.ca/calendar2018-01/grad/academic-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 Assistant to set up an appointment.

# **Accommodation of Religious Observance:**

https://web.uvic.ca/calendar2018-01/grad/registration/Registration.1.16.html

# Policy on Inclusivity and Diversity:

https://web.uvic.ca/calendar2018-01/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.

http://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 Graduate Calendar for the UVic policy on academic integrity.

https://web.uvic.ca/calendar2018-01/grad/academic-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.