

COURSE OUTLINE

ECE 572– Security, Privacy, and Data Analytics

Term – SUMMER 2020 (202005)

Instructor

Dr. Imen Bourguiba
Phone: 250-472-5814
E-mail: imenbour@uvic.ca

Office Hours

Days: M/Th
Time: 3:00-4:00 pm
Online: Zoom
Join live online office hours here:
[https://uvic.zoom.us/j/94478195088?](https://uvic.zoom.us/j/94478195088?pwd=MzBEVUdFMlEV4aHYreUZIQUVwVEJZz09)
[pwd=MzBEVUdFMlEV4aHYreUZIQUVwVEJZz09](https://uvic.zoom.us/j/94478195088?pwd=MzBEVUdFMlEV4aHYreUZIQUVwVEJZz09)

Course Objectives

- To explore the foundations of information security and privacy issues from an engineering perspective
- To learn analytics and statistical techniques and methodologies in information security

Learning Outcomes

Students will be able to:

- Deploy analytics and statistical packages, tools, and applications
- Simulate security events and scenarios
- Apply concepts, techniques, and methods to quantify levels of security and privacy required and achieved
- Use established protocols and procedures to countermeasure adversaries and attacks

Syllabus

Key distribution and authentication security; Internet communication security; Web application security; mobile device security; cloud computing security; security data collection framework; analytics software and tools; analytics and incident response; simulations and security processes; access analysis; security intelligence.

A-Section(s): A01 / CRN 30348

Days: M/Th

Time: 10:00-11:20 am

A02 30349

Days: M/Th

Time: 10:00-11:20 am

TAs : Abdul Aleem Syed; E-mail: aleemshah110@gmail.com;
Araya Chaowalit; E-mail: araya.chaowalit@gmail.com

Online: Zoom

Required Text

Title: Information Security Analytics: Finding Security Insights, Patterns, and Anomalies in Big Data
Author: Talabis, McPherson, Miyamoto, Martin
Publisher: Elsevier
Year: 2015

Online Course Delivery:

This course will be conducted online during this term, and students need to complete tests online. The students will require access to reliable internet, a computer to be able to watch the videos, and a device to scan (camera on a phone works) the tests are needed in this course. If access to any of these is a potential problem for you, please contact me at: imenbour@uvic.ca.

Zoom: We will use this for lectures and office hours. UVic is implementing an institutional version of Zoom and at present, the Zoom server is located in the US. The data stored on the US server will be limited to student name, uvic.ca email address, UVic affiliation and device information. Students will be required to provide consent for the disclosure of this information. Consent will be collected when a student first accesses Zoom. Students who have questions regarding this disclosure can contact the Privacy and Access to Information Office at privacyinfo@uvic.ca. In cases where a student does not consent to the disclosure of this information, UVic may provide the student with a pseudonym account (e.g. in cases where a course is required).

References: conference and journal articles

Assessment:

Test 1:	25%	Due Dates: June 25 th , 2020
Test 2:	25%	Due Dates: July 16 th , 2020
Project	50%	Due Dates: July 30 th , 2020

Important: All deadlines and schedules for this course will reference Pacific Daylight Time.

Note: Failure to complete all requirements 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 Graduate Calendar.

<https://www.uvic.ca/calendar2020-05/grad/index.php#/policy/B13jeiMdE?bc=true&bcCurrent=07%20-%20Grading&bcltemType=policies>

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.

Course Withdrawal Deadlines:

- May 16, 2020: Withdrawal with 100% reduction of tuition fees
- June 6, 2020: Withdrawal with 50% reduction of tuition fees
- July 1, 2020: Last day for withdrawal (no fees returned)

Accommodation of Religious Observance:

<https://www.uvic.ca/calendar2020-05/grad/index.php#/policy/SkmigiMOV?bc=true&bcCurrent=17%20-%20Accommodation%20of%20Religious%20Observance&bcltemType=policies>

Policy on Inclusivity and Diversity:

Engineering: <https://www.uvic.ca/engineering/about/equity/index.php>

Academic Calendar: <https://www.uvic.ca/calendar2020-05/grad/index.php#/policy/HkQ0pzdAN>

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>

Academic Integrity:

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://www.uvic.ca/calendar2020-05/grad/index.php#/policy/BJujesM_E?bc=true&bcCurrent=02%20-%20Policy%20on%20Academic%20Integrity&bcltemType=policies

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 Centre for Accessible Learning located in the Campus Services Building: <https://www.uvic.ca/services/cal/>. 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.

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](https://uvicombudsperson.ca/) 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/>