

CYBR171 (2018) - Cybersecurity Fundamentals

Prescription

This course examines how cybersecurity affects individuals and society and aims to develop understanding that the concept of cybersecurity goes beyond technology to include people, information, and processes. It will examine key concepts as well as current issues and debates about how to respond to cybersecurity. Note that this course will involve using a range of security tools but does not involve programming. Students will also write short essays related to current debates around cybersecurity issues.

Course learning objectives

Students who pass this course will be able to:

1. Describe basic concepts and terminology related to information security and cyber security including the adversarial mindset.
2. Explain the relationship between cyber security and causes of cyber security failures with reference to the role of people, cultural norms, information and processes as well as technical factors.
3. Be able to examine and explain some of the legal and ethical issues related to current debates around cyber security, cyber crime and cyber warfare.
4. Use basic tools and techniques for improving students own security and privacy practices.

Course content

This course covers concepts such as cryptography, authentication and authorisation, malware, network offensive and defensive technologies, social engineering, privacy and case studies around elections and the Internet of Things.

Withdrawal from Course

Withdrawal dates and process:

<https://www.victoria.ac.nz/students/study/course-additions-withdrawals>

Lecturers

Ian Welch (Coordinator)

ian.Welch@vuw.ac.nz 04 4635664

403 Alan MacDiarmid Building, Kelburn

Harith Al-Sahaf

harith.al-sahaf@vuw.ac.nz

Harith Al-Sahaf is senior tutor for the course and will assist with lectures. We will also have guest lectures from time to time in the second half of the course.

Teaching Format

Weekly lectures, lab/tutorial sessions, two assignment and online quizzes during whole course. The assignments will include a set of practical problems involving the use of security tools and short answer questions related to the work done as well as assigned readings. Quizzes are online and are completed

before the lecture. The test and examination topics will be related to the lecture material and learning during the assignments.

Student feedback

Student feedback on University courses may be found at:
www.cad.vuw.ac.nz/feedback/feedback_display.php

Dates (trimester, teaching & break dates)

- Teaching: 05 March 2018 - 08 June 2018
- Break: 23 April 2018 - 27 April 2018
- Study period: 11 June 2018 - 14 June 2018
- Exam period: 15 June 2018 - 04 July 2018

Class Times and Room Numbers

05 March 2018 - 25 March 2018

- **Thursday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn

05 March 2018 - 01 April 2018

- **Tuesday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn
- **Wednesday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn

02 April 2018 - 22 April 2018

- **Thursday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn

09 April 2018 - 22 April 2018

- **Tuesday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn
- **Wednesday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn

30 April 2018 - 10 June 2018

- **Tuesday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn
- **Wednesday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn
- **Thursday** 17:10 - 18:00 – LT205, Hugh Mackenzie, Kelburn

Other Classes

We have scheduled one-hour labs for CYBR 171. You will sign up for these in the first week via the course website.

Set Texts and Recommended Readings

Required

There are no required texts for this offering.

Mandatory Course Requirements

In addition to achieving an overall pass mark of at least 50%, students must:

- Achieve at least a **D** in the final examination.

If you believe that exceptional circumstances may prevent you from meeting the mandatory course requirements, contact the Course Coordinator for advice as soon as possible.

Assessment

Cryptography assignment	Mon16/04/18	CLO: 1,2,4	20%
Terms test	Weds 9/05/18	CLO: 1,2,3	20%
Social engineering assignment	Mon 28/05/18	CLO: 1,3,4	20%
Blackboard quizzes (worth 1.5% each)	Prior to each lecture (weeks 2-11).	CLO: 1,2,3	10%
Examination	Exam period	CLO: 1,2,3	30%

Penalties

Late assignment submissions will receive a penalty of 10% for each day late (pro-rata).

Extensions

Each student will have 3 'slip days' which you may choose to use for any assignment or assignments during the course. There will be no penalty applied for these slip days. You do not need to apply for these - any slip days you have left will be automatically applied to assignments that you submit late. The slip days are intended to cover minor illnesses or other personal reasons for being late. You should only ask for extensions in the case of more significant or longer lasting problems (and you may need documentation). Do not waste slip days on procrastination!

Your mark for the quizzes will be the best sixteen out of the twenty quizzes. Extensions are not possible for quizzes because of the role they play in preparing for the lectures that week.

Submission & Return

All work must be submitted through the blackboard system. Marks and comments will also be returned through the blackboard system.

Workload

The total workload for CYBR 171 is 150 hours. In order to maintain satisfactory progress in CYBR 171, you should plan to spend an average of 10 hours per week on this course. An approximate breakdown is: lectures 2 hours, lab 1 hour, quiz 1 hour, assignments 3 hours, reading and review 3 hours.

Teaching Plan

See: <https://blackboard.vuw.ac.nz>

Communication of Additional Information

All online material for this course can be accessed at <https://blackboard.vuw.ac.nz/>

Links to General Course Information

- Academic Integrity and Plagiarism: <https://www.victoria.ac.nz/students/study/exams/integrity-plagiarism>
- Academic Progress: <https://www.victoria.ac.nz/students/study/progress/academic-progress> (including restrictions and non-engagement)
- Dates and deadlines: <https://www.victoria.ac.nz/students/study/dates>
- Grades: <https://www.victoria.ac.nz/students/study/progress/grades>
- Special passes: Refer to the Assessment Handbook, at <https://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>
- Statutes and policies, e.g. Student Conduct Statute: <https://www.victoria.ac.nz/about/governance/strategy>
- Student support: <https://www.victoria.ac.nz/students/support>
- Students with disabilities: https://www.victoria.ac.nz/st_services/disability/
- Student Charter: <https://www.victoria.ac.nz/learning-teaching/learning-partnerships/student-charter>
- Terms and Conditions: <https://www.victoria.ac.nz/study/apply-enrol/terms-conditions/student-contract>

- Turnitin: <http://www.cad.vuw.ac.nz/wiki/index.php/Turnitin>
- University structure: <https://www.victoria.ac.nz/about/governance/structure>
- VUWSA: <http://www.vuwsa.org.nz>

Offering CRN: [30039](#)

Points: 15

Duration: 05 March 2018 - 04 July 2018

Starts: Trimester 1

Campus: Kelburn