School of
Engineering and Computer Science
Te Kura Mātai Pūkaha, Pūrorohiko

# 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.

# 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 04 4639792

410 Cotton, Kelburn

Dr Masood Mansoori will be helping with some lectures and laboratories. We also will include guest lectures from people working in the cybersecurity field.

# Teaching Format

During the trimester there will be three lectures, and one laboratory per week.

# Student feedback

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

Last year we had 17% of the students who took the talk provided feedback, this means that the results are only indicative because the sample was too small.

Overall students rated the course quality as very good. Students thought that they developed an understanding of the subject, that the workload was about right, and assessments were relevant.

An area we intend to change is how we provide feedback to students related to labs. We will be using the ECS assessment system to return feedback on labs.

# Dates (trimester, teaching & break dates)

- Teaching: 04 March 2019 - 09 June 2019
- Break: 15 April 2019 - 28 April 2019
- Study period: 10 June 2019 - 13 June 2019
- Exam period: 14 June 2019 - 29 June 2019

# Class Times and Room Numbers

**04 March 2019 - 14 April 2019**

- **Monday** 09:00 - 09:50 – LT303, New Kirk, Kelburn
- **Tuesday** 09:00 - 09:50 – LT303, New Kirk, Kelburn
- **Thursday** 09:00 - 09:50 – LT303, New Kirk, Kelburn

**29 April 2019 - 09 June 2019**

- **Monday** 09:00 - 09:50 – LT303, New Kirk, Kelburn
- **Tuesday** 09:00 - 09:50 – LT303, New Kirk, Kelburn
- **Thursday** 09:00 - 09:50 – LT303, New Kirk, Kelburn

# Other Classes

Students must sign up in myAllocator for a regular one-hour laboratory session each week. Students should plan to attend all weeks. Session times will be announced in the week before lectures start.

# Set Texts and Recommended Readings

## Required

We will be referring to readings from "Computer Security: Principles and Practice, Global Edition eBook (4e)" by William Stallings and Lawrie Brown. There is an e-book version available for $NZ 60 from

http://www.pearsoned.co.nz/9781292220635

You will also be able to access an online-only version of the book via the University library. A link will be provided on the course website when available and announced in lectures.

# Mandatory Course Requirements

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

- Achieve at least 40% in the final examination.
- Achieve at least 40% across the assignments and laboratory exercises.

*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

The course will be assessed through assignments, laboratory exercises, a test and a final examination.

| Assessment Item | Due Date or Test Date | CLO(s) | Percentage |
|---|---|---|---|
| Laboratory exercise 1 | Week 3 | CLO: 1,2,3 | 2.5% |
| Laboratory exercise 2 | Week 5 | CLO: 1,2,3 | 2.5% |
| Assignment 1 | week 6 | CLO: 1,2,4 | 15% |
| Terms test | week 7 | CLO: 1,2,3 | 20% |
| Laboratory exercise 3 | Week 9 | CLO: 1,2,3 | 2.5% |
| Laboratory exercise 4 | Week 11 | CLO: 1,2,3 | 2.5% |
| Assignment 2 | week 12 | CLO: 1,3,4 | 15% |
| Examination (2 hours) | Exam period | CLO: 1,2,3 | 40% |

## Penalties

Late submissions will receive a penalty of 25% for each day late, rounded up to the nearest whole day.

## Extensions

Students receive two free "late days" for which no penalty will be applied and which are applied automatically by the ECS marking system. You do not need to apply for these. Late days are used in fractions, for example, using 0.1 of a late day leaves you with 1.9 late days. Late days are provided to cope with unexpected problems. Do not use late days to cover procrastination. Extensions to assignments beyond the late days should only be sought in cases of serious personal difficulty (e.g., significant illness) and are considered on their merits. We reserve the right to ask for documentation to support your case.

## Submission & Return

Laboratory exercises and assignments are submitted through the ECS assessment system. Marks and comments will also be returned through the ECS assessment system.

## Marking Criteria

All assessment is marked by tutors or lecturers following a marking scheme produced by the lecturers when the assessment is developed.

## Required Equipment

You are able to use the ECS computers for all the laboratory exercises and assignments but may find it more convenient to use your own, in which case you will need to use a Linux virtual machine such as Ubuntu with VirtualBox.

# 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. A plausible and approximate breakdown for these hours would be:

- Lectures and laboratories: 4 hours per week
- Consolidating lectured material, through readings, completion of exercises, worksheets: 3 hours per week
- Assignments: 3 hours per week

# Teaching Plan

See: https://ecs.victoria.ac.nz/Courses/CYBR171_2019T1/LectureSchedule

# Communication of Additional Information

All online material for this course can be accessed at https://ecs.victoria.ac.nz/Courses/CYBR171_2019T1/.

# 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-progess (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:** 04 March 2019 - 30 June 2019
**Starts:** Trimester 1
**Campus:** Kelburn