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. 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.

2022: The course is primarily offered in-person, and there are components such as tests, labs, tutorials, and marking sessions which require in-person attendance. There will be remote alternatives for all the components of the course, but these are only available to students studying from outside the Wellington region. The remote option for tests will use a Zoom-based system for online supervision of the tests.

Students taking this course remotely must have access to a computer with camera and microphone and a reliable high speed internet connection that will support real-time video plus audio connections and screen sharing. Students must be able to use Zoom; other communication applications may also be used. A mobile phone connection only is not considered sufficient. The computer must be adequate to support the programming required by the course: almost any modern windows, macintosh, or unix laptop or desktop computer will be sufficient, but an Android or IOS tablet will not.
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Withdrawal from Course

Withdrawal dates and process:
https://www.wgtn.ac.nz/students/study/course-additions-withdrawals

Lecturers

Harith Al-Sahaf (Coordinator)

harith.al-sahaf@vuw.ac.nz   04 463 5656

CO 129 Cotton Building (All Blocks), Gate 7, Kelburn Parade, Kelburn

AProf Ian Welch

ian.welch@vuw.ac.nz   04 463 5664

Lisa Patterson

lisa.patterson@vuw.ac.nz

Teaching Format

This course will be offered in-person and online. For students in Wellington, there will be a combination of in-person components and web/internet based resources. It will also be possible to take the course entirely online for those who cannot attend on campus, with all the components provided in-person also made available online.

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

Dates (trimester, teaching & break dates)

- Teaching: 28 February 2022 - 03 June 2022
- Break: 11 April 2022 - 24 April 2022
- Study period: 06 June 2022 - 09 June 2022
- Exam period: 10 June 2022 - 25 June 2022

Class Times and Room Numbers

28 February 2022 - 10 April 2022
- **Monday** 10:00 - 10:50 – LT103, Maclaurin, Kelburn
- **Wednesday** 15:10 - 16:00 – LT103, Maclaurin, Kelburn
- **Thursday** 10:00 - 10:50 – LT103, Maclaurin, Kelburn

25 April 2022 - 05 June 2022
- **Monday** 10:00 - 10:50 – LT103, Maclaurin, Kelburn
- **Wednesday** 15:10 - 16:00 – LT103, Maclaurin, Kelburn
- **Thursday** 10:00 - 10:50 – LT103, Maclaurin, 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.

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 40% across the two tests.
- 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, and two tests.

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	20%
Test 1 (1 hour)	Week 8	CLO: 1,2,3	25%
Laboratory exercise 3	Week 9	CLO: 1,2,3	2.5%
Assignment 2	Week 11	CLO: 1,3,4	20%
Laboratory exercise 4	Week 12	CLO: 1,2,3	2.5%
Test 2 (1 hour)	During assessment period	CLO: 1,2,3	25%

Penalties

Late submissions will receive a penalty of 10% for each day late calculated on a pro-rata basis. For example, three days late means you get 30% of your mark deducted.

Extensions

Students receive three 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.wgtn.ac.nz/Courses/CYBR171_2022T1/LectureSchedule

Communication of Additional Information

All online material for this course can be accessed at https://ecs.wgtn.ac.nz/Courses/CYBR171_2022T1/

Links to General Course Information

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

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

Offering CRN: 30039
Points: 15
Duration: 28 February 2022 - 26 June 2022
Starts: Trimester 1
Campus: Kelburn