



## Prescription

This course addresses the collection and analysis of the digital footprint left by humans and computers in a way that is reproducible by third-parties and suitable for presentation to a non-specialist audience. Topics include the rules of evidence, preservation of data, file system forensics, network forensics, live forensics, anti-forensics as well as forensics for non-standard devices such as mobile/smart phones, cloud computing and vehicular systems. Practical work will include labs where evidence is collected using tools and presented as well as the use, development and enhancement of these tools.

## Course learning objectives

Students who pass this course should be able to:

1. Use tools to carry out the steps involved in forensic science from collecting data to preserving evidence within the context of a framework for digital forensic evidence collection and processing, and present this information to a non-specialist audience.
2. Understand the technical details of filesystems and networks and apply this understanding to the construction and evaluation of new forensics tool functionality.
3. Critically evaluate evidence obtained using digital forensics methods based upon knowledge of evidential requirements as well as technical knowledge of operating systems, networks and non-standard devices such as mobile/smart phones, cloud computing and vehicular systems.

## Course content

The course is primarily offered in-person, but there will also be a remote option and there will be online alternatives for all the components of the course for students who cannot attend in-person.

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: a reasonably powerful windows, macintosh, or unix laptop or desktop computer should be sufficient, but an Android or IOS tablet will not.

If the assessment of the course includes tests, the tests will generally be run in-person on the Kelburn campus. There will be a remote option for students who cannot attend in-person and who have a strong justification (for example, being enrolled from overseas).

The remote test option will use Zoom for online supervision of the tests and you must be able to use Zoom with a camera, microphone, and screen-sharing. Students who will need to use the remote test option must contact the course coordinator in the first two weeks to get permission and make arrangements.

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## Withdrawal from Course

Withdrawal dates and process:

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

# Lecturers

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## Ian Welch (Coordinator)

ian.welch@vuw.ac.nz 04 4635664

131 Alan MacDiarmid Bldg Gate 7 Kelburn Pde, Kelburn

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## Masood Mansoori

masood.mansoori@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.

Weekly lectures, lab exercises and individual assignments during whole course.

# Student feedback

This is the first time we have run the course so there is no feedback to report upon.

# Dates (trimester, teaching & break dates)

- Teaching: 05 July 2021 - 08 October 2021
- Break: 16 August 2021 - 29 August 2021
- Study period: 11 October 2021 - 14 October 2021
- Exam period: 15 October 2021 - 06 November 2021

# Class Times and Room Numbers

## 05 July 2021 - 15 August 2021

- **Tuesday** 09:00 - 09:50 – 404, Murphy, Kelburn
- **Friday** 09:00 - 09:50 – 404, Murphy, Kelburn

## 30 August 2021 - 10 October 2021

- **Tuesday** 09:00 - 09:50 – 404, Murphy, Kelburn
- **Friday** 09:00 - 09:50 – 404, Murphy, Kelburn

# Other Classes

We will have tutorial sessions at 10am in CO139 on 30th July, 13th August, 17th September and 11th October.

# 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:

- Complete at least 80% of the labs because this where much of the learning related to the CLOs of the course will take place.
- Achieve at least a "D" in the final assessment because this is where you will demonstrate your understanding of and ability to apply what you have learnt in the course.

*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

This assessment scheme is the 2021 version.

Assessment Item	Due Date or Test Date	CLO(s)	Percentage
Assessment one (3 weeks)	8th August 2021	CLO: 1,2,3	25%
Assessment two (3 weeks)	29th August 2021	CLO: 1,2,3	25%
Assessment three (3 weeks)	26th September 2021	CLO: 1,2,3	25%
Assessment four (3 weeks)	24th October 2021	CLO: 1,2,3	25%

## Penalties

Each student will have 3 "late days" - 72 hours of automatic extension which will be applied to any assignment or assignments during the course, as needed. Please note that these 72 hours are for the whole course, not for each assignment.

The penalty for late work beyond your allocation of "late days" will be 10% shrinking cap per day after the due date, unless there has been prior negotiation. Shrinking cap reduces maximum mark per day so after 3 days the maximum mark is 70%(B) but C+ work will receive a C+ grade.

## Extensions

Individual extensions will only be granted in exceptional personal circumstances, and should be negotiated with the course coordinator before the deadline whenever possible. Documentation (eg, medical certificate) may be required.

## Submission & Return

All work should be submitted through the ECS submission system, accessible through the course web pages. Marks and comments will be returned through the ECS marking system, also available through the course web pages.

## Workload

The student workload for this course is 150 hours.

## Teaching Plan

See [https://ecs.wgtn.ac.nz/Courses/CYBR472\\_2021T2/LectureSchedule](https://ecs.wgtn.ac.nz/Courses/CYBR472_2021T2/LectureSchedule)

## Communication of Additional Information

All online material for this course can be accessed at [https://ecs.wgtn.ac.nz/Courses/CYBR472\\_2021T2/](https://ecs.wgtn.ac.nz/Courses/CYBR472_2021T2/)

## 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-progress> (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/](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-enroll/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:** [32240](#)

**Points:** 15

**Prerequisites:** CYBR 271, 371, 30 further 300-level pts from (CYBR, NWEN, SWEN 324, 326)

**Duration:** 05 July 2021 - 07 November 2021

**Starts:** Trimester 2

**Campus:** Kelburn