

COMP2310

Digital Forensics

Session 1, Weekday attendance, North Ryde 2020

Department of Computing

Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	3
Delivery and Resources	3
Unit Schedule	4
Policies and Procedures	5

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff

Alireza Jolfaei

alireza.jolfaei@mq.edu.au

Muhammad Ikram

muhammad.ikram@mq.edu.au

Credit points

10

Prerequisites

(COMP1010 or COMP125) and (COMP1350 or ISYS114)

Corequisites

COMP2250 or COMP247

Co-badged status

Unit description

This unit provides an introduction to digital forensics and incident response methods, techniques and tools. Strong emphasis is given to ethics, the laws and procedures as students are exposed to forensics techniques used to collect and recover data. Students are taught how to conduct digital investigations following the process of preserving, acquiring, analysing and presenting digital evidence.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Adhere to highest ethical standards, obey the laws and follow procedures at all times when collecting and dealing with digital evidence.

ULO2: Develop and follow suitable processes when performing incident response and conducting digital forensics investigations.

ULO3: Use appropriate tools and techniques to collect and recover data from a variety of digital sources.

ULO4: Communicate effectively the results of an investigation following professional

standards.

Assessment Tasks

Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult iLearn for revised unit information.

Find out more about the Coronavirus (COVID-19) and potential impacts on staff and students

General Assessment Information

Late Submission

No extensions will be granted without an approved application for Special Consideration. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late. For example, 25 hours late in submission for an assignment worth 10 marks – 20% penalty or 2 marks deducted from the total. No submission will be accepted after solutions have been posted.

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19. Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

COMPUTING FACILITIES

Please note that COMP2310 is a BYOD (Bring Your Own Device). You will be expected to bring your own laptop computer (Windows, Mac or Linux) to the workshop, install and configure the required software, and incorporate secure practices into your daily work (and play!) routines.

CLASSES

Each week you should complete any assigned readings and review the lecture slides in order to prepare for the lecture. There are three hours of lectures and a one-hour workshop every week. The hands-on exercises in works help to reinforce concepts introduced during the lectures. You should have chosen a practical on enrollment. You will find it helpful to read the workshop instructions before attending - that way, you can get to work quickly! For details of days, times and rooms consult the timetables webpage.

Note that Workshops commence in week 1.

You should have selected a practical at enrollment. Please note that you will be required to submit work every week. Failure to do so may result in you failing the unit or being excluded from the exam.

DISCUSSION BOARDS

This unit makes use of discussion boards hosted within iLearn. Please post questions there; they are monitored by the staff on the unit.

RECOMMENDED TEXTS

- Guide to Computer Forensics and Investigations, by Bill Nelson, Amelia Phillips, Christopher Steuart, 6th edition, Cengage Learning, 2019.
- Digital Forensics and Investigations People, Process, and Technologies to Defend the Enterprise, by Jason Sachowski, 1st edition, 2018.

TECHNOLOGY USED

iLearn

<u>iLearn</u> is a Learning Management System that gives you access to lecture slides, lecture recordings, forums, assessment tasks, instructions for practicals, discussion forums and other resources.

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult <u>iLearn</u> for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

The topics covered in this unit are as follows:

Module 1 (Weeks 1 to 4)	Computer Forensics and Investigation Processes
	Understanding Computing Investigations
	The Investigator's Office and Laboratory
	Data Acquisitions
	Processing Crime and Incident Scenes

Module 2 (Weeks 5 to 8)	 Working with Windows and DOS Systems Computer Forensics Tools File Systems Recovering Graphics Files Recovering data from memory/hardware Digital Forensics Analysis and Validation
Module 3 (Weeks 9 to 13)	 Virtual Machines, Network Forensics, and Live Acquisitions E-mail Investigations Cell Phone and Mobile Device Forensics Report Writing for High-Tech Investigations Expert Testimony in High-Tech Investigations Ethics and High-Tech Investigations

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.m.q.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- · Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy (Note: The Special Consideration Policy is effective from 4

 December 2017 and replaces the Disruption to Studies Policy.)

Students seeking more policy resources can visit the <u>Student Policy Gateway</u> (<u>https://students.m.g.edu.au/support/study/student-policy-gateway</u>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released

directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Students with a disability are encouraged to contact the <u>Disability Service</u> who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/ offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.