



COIT20267 Computer Forensics

Term 2 - 2018

Profile information current as at 27/04/2024 02:02 am

All details in this unit profile for COIT20267 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

The continual integration of computers and the Internet into business and personal activities is creating opportunities for crimes utilising these technologies. The investigation of these electronic crimes requires specialised computer-based techniques to collect and analyse evidence. This unit equips you with a broad understanding of how electronic crimes are conducted, as well as in-depth knowledge of computer forensic investigations. Through the use of industry-leading digital forensic tools in a laboratory environment, you will develop practical skills applicable to all phases of forensic investigations. You will learn different approaches for identifying, gathering and analysing digital evidence, as well as addressing legal issues in computer forensic investigations.

Details

Career Level: *Postgraduate*

Unit Level: *Level 9*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite: COIT20261 Network Routing and Switching

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 2 - 2018

- Brisbane
- Distance
- Melbourne
- Sydney

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Postgraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Online Quiz(zes)**

Weighting: 20%

2. **Practical and Written Assessment**

Weighting: 35%

3. **Practical and Written Assessment**

Weighting: 45%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Students feedback

Feedback

More comprehensive and constructive feedback should be given to students assessments.

Recommendation

Develop detailed marking criteria for assessments and encourage tutors to write detailed and constructive feedback as inline comments in the Word submission files.

Feedback from Student feedback and staff feedback

Feedback

The software (e.g. OSForensics) installed in the lab is not fully compatible with lab tasks in the latest version of the Lab manual.

Recommendation

Update software versions in the Lab to the recommended version in the Lab manual.

Feedback from Self-reflection and staff feedback

Feedback

Lab files are too large and take up too much time for students to download in the lab. Some of the required files for the lab are more than 2GB, and therefore cannot be uploaded into Moodle.

Recommendation

Provide alternative methods for students to access large files in class, e.g. several USB drives for distribution in class, Cloudstor for downloads.

Unit Learning Outcomes

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

1. Discuss the different types of electronic crime and the need for a computer forensics investigation
2. Analyse the role of computer forensic professionals in enabling successful investigation and prevention of electronic crime in business environments
3. Apply a systematic approach in a digital investigation through the conduct of computer forensics procedures and the use of computer forensic tools
4. Apply the necessary steps required for collecting, storing, analysing and validating digital evidence
5. Explain the legal issues involved in a computer forensic investigation
6. Evaluate current industry best practices for analysing computer forensic case scenarios.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles.

ACS members can use the tool MySFIA to build a skills profile at

<https://www.acs.org.au/professionalrecognition/mysfia-b2c.html>

This unit contributes to the following workplace skills as defined by SFIA. The SFIA code is included:

- Information Security (SCTY)
- Digital forensics (DGFS)
- Data analysis (DTAN)
- Testing (TEST)
- Network Support (NTAS)
- Application Support (ASUP).

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Online Quiz(zes) - 20%	●	●			●	
2 - Written Assessment - 35%	●	●	●	●		●
3 - Written Assessment - 45%			●	●	●	●

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
1 - Knowledge	○	○	○	○	○	○
2 - Communication	○	○	○	○	○	○
3 - Cognitive, technical and creative skills		○	○	○	○	○
4 - Research	○	○	○	○	○	○
5 - Self-management						
6 - Ethical and Professional Responsibility	○	○	○	○	○	○
7 - Leadership						○
8 - Aboriginal and Torres Strait Islander Cultures						

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Online Quiz(zes) - 20%	○	○						
2 - Written Assessment - 35%	○	○		○		○		
3 - Written Assessment - 45%	○	○		○		○	○	

Textbooks and Resources

Textbooks

COIT20267

Prescribed

Guide to computer forensics and investigations

5th edition (2016)

Authors: Nelson, B., Phillips, A., and Steuart, C.

Cengage

ISBN: 9781285060200

Binding: Paperback

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Supplementary

Lab manual for guide to computer forensics and investigations

5th edition (2016)

Authors: Blitz, A.

Cengage

Binding: Paperback

Additional Textbook Information

[View textbooks at the CQUniversity Bookshop](#)

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Santoso Wibowo Unit Coordinator

s.wibowo1@cqu.edu.au

Schedule

Week 1 - 09 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to digital forensics	Chapter 1	

Week 2 - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Digital investigation environments	Chapter 2	

Week 3 - 23 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Data Acquisition Chapter 3

Week 4 - 30 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Processing crime and incident scenes	Chapter 4	

Week 5 - 06 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Digital forensics tools	Chapter 6	

Vacation Week - 13 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 20 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Digital forensics analysis and validation	Chapter 9	Online Quiz Due: Week 6 Friday (24 Aug 2018) 11:45 pm AEST

Week 7 - 27 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Understanding Windows and DOS Systems	Chapter 5	Written Assignment 1 - Presentation and Comparative Study Due: Week 7 Friday (31 Aug 2018) 11:45 pm AEST

Week 8 - 03 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Understanding UNIX/Linux Systems and Recovering Graphics Files	Chapter 7 & 8	

Week 9 - 10 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Mobile Device and Cloud Forensics	Chapter 12 & 13	

Week 10 - 17 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
E-mail and social media investigations	Chapter 11	

Week 11 - 24 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Digital forensics report and professionalism	Chapter 14 & 16	

Week 12 - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Expert Testimony	Chapter 15	Written Assignment 2 - Case Study Due: Week 12 Friday (5 Oct 2018) 11:45 pm AEST

Review/Exam Week - 08 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 15 Oct 2018

Term Specific Information

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Phone +61 03 96160571 | Email s.wibowo@cqu.edu.au

Assessment Tasks

1 Online Quiz

Assessment Type

Online Quiz(zes)

Task Description

This quiz has 40 multiple choice questions relating to the unit material of Weeks 1 to 5, covering Chapters 1, 2, 3, 4 and 6 of the prescribed textbook. The quiz is open book implying that students are allowed to consult the prescribed textbook, lecture notes and their own notes.

Number of Quizzes**Frequency of Quizzes****Assessment Due Date**

Week 6 Friday (24 Aug 2018) 11:45 pm AEST

Return Date to Students

Week 7 Friday (31 Aug 2018)

Weighting

20%

Assessment Criteria

1. The quiz will be available on the Unit website on Moodle in Week 6.
2. Each student will be allowed 2 attempts and highest mark achieved in these attempts will be recorded by the system.
3. There will be a time limit of 90 minutes to complete the quiz.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Learning Outcomes Assessed

- Discuss the different types of electronic crime and the need for a computer forensics investigation.
- Analyse the role of computer forensic professionals in enabling successful investigation and prevention of electronic crime in business environments.
- Analyse the necessary steps required for collecting, storing, analysing and validating digital evidence.
- Identify the legal issues involved in a computer forensic investigation.

Graduate Attributes

- Knowledge
- Communication

2 Written Assignment 1 - Presentation and Comparative Study

Assessment Type

Practical and Written Assessment

Task Description

This assignment requires you to research on existing computer forensics tools and apply the suitable computer forensics tool to evaluate a real case problem. More specifically, you will be asked to:

1. Identify different computer forensics tools for computer investigations.
2. Analyse the strengths and weaknesses of the computer forensics tools.
3. Demonstrate the suitability of the chosen computer forensics tool for dealing with a real case scenario.

Please refer to the unit website in Moodle for further information and detailed marking criteria.

Assessment Due Date

Week 7 Friday (31 Aug 2018) 11:45 pm AEST

Return Date to Students

Week 9 Friday (14 Sept 2018)

Weighting

35%

Assessment Criteria

You are assessed mainly on:

1. Providing a thorough analysis on available computer forensics tools.
2. Justifying the use of a specific computer forensics tool.
3. Providing a discussion on the application of the computer forensics tool for dealing with the real case problem.
4. Presenting the analysis and findings in the report.
5. Demonstrating an understanding on criminal procedural and privacy laws.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Submit as per instructions on the Moodle unit website.

Learning Outcomes Assessed

- Discuss the different types of electronic crime and the need for a computer forensics investigation.
- Analyse the role of computer forensic professionals in enabling successful investigation and prevention of electronic crime in business environments.
- Apply a systematic approach in a digital investigation through the conduct of computer forensics procedures and the use of computer forensic tools.
- Analyse the necessary steps required for collecting, storing, analysing and validating digital evidence.
- Critically evaluate the different methods of recovering evidence from files and explain how to determine feasible methods.
- Identify the legal issues involved in a computer forensic investigation.
- Apply current industry best practices for analysing computer forensic case scenarios.

Graduate Attributes

- Knowledge
- Communication
- Ethical and Professional Responsibility

3 Written Assignment 2 - Case Study

Assessment Type

Practical and Written Assessment

Task Description

The purpose of this assignment is to produce a report based on a given case study. In this assessment, you will be specifically asked to:

1. Apply the computer forensics methodologies.
2. Write an analysis of a case study.
3. Prepare an outline of a professional computer forensics plan.

Details of the case, the questions, what you are required to submit and guidelines for approaching the assignment will be available on Moodle unit website.

Assessment Due Date

Week 12 Friday (5 Oct 2018) 11:45 pm AEST

Return Date to Students

Written assignment 2 marks will be released at the Certification of Grades.

Weighting

45%

Assessment Criteria

You are assessed mainly on:

1. The justification of using the computer forensics methodology and approach.
2. Describing the resources required for a computer forensics investigation.
3. Outlining an approach for evidence identification and acquisition.
4. Describing the steps to be taken during the analysis phase.
5. Presenting the full investigative report.

Further details are available on Moodle.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Learning Outcomes Assessed

- Discuss the different types of electronic crime and the need for a computer forensics investigation.
- Analyse the role of computer forensic professionals in enabling successful investigation and prevention of electronic crime in business environments.
- Apply a systematic approach in a digital investigation through the conduct of computer forensics procedures and the use of computer forensic tools.
- Analyse the necessary steps required for collecting, storing, analysing and validating digital evidence.
- Critically evaluate the different methods of recovering evidence from files and explain how to determine feasible methods.
- Identify the legal issues involved in a computer forensic investigation.
- Apply current industry best practices for analysing computer forensic case scenarios.

Graduate Attributes

- Knowledge
- Communication
- Ethical and Professional Responsibility

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?



Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem