COIT12201 *Electronic Crime and Digital Forensics*
Term 2 - 2020

Profile information current as at 14/12/2025 12:44 pm

General Information

Overview

This advanced unit provides you with a broad understanding of electronic crime and digital forensics in investigations of electronic criminal activities. In this unit, you will learn digital forensics procedures and tools, methods of using digital evidence in justice and legal issues in digital forensics. You will use industry leading software tools to conduct your own forensics investigation on realistic case studies. Completion of this unit enables you to pursue careers within an electronic crime investigation unit of law enforcement agencies, government departments, and businesses.

Details

Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Pre-requisite: (COIT11233 or COIT11238) and (COIT13147 or COIT12206)
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 - 2020

- Brisbane
- Cairns
- Melbourne
- Online
- Rockhampton
- Sydney
- Townsville

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 Undergraduate 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. **In-class Test(s)**
Weighting: 20%
2. **Written Assessment**
Weighting: 30%
3. **Take Home Exam**
Weighting: 50%

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 evaluation feedback and co-lecturers email.

Feedback

With the introduction of the 6th edition of the Textbook, students faced software resource incompatibility issues to complete the assessments.

Recommendation

MindTap eLearning resource is recommended for use to overcome the issues related to required software resources to complete the lab exercises and the assessments.

Feedback from Students evaluation feedback.

Feedback

Assignment 2 due date should be moved to after all relative content to assignment 2 is covered in class (ethics).

Recommendation

Teach contents related to ethics prior to due date of assignment 2.

Unit Learning Outcomes

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

1. Define electronic crime and digital forensics
2. Describe the role of digital forensic professionals in investigation and prevention of electronic crime in business environments
3. Apply a systematic approach to the capture, recording, and analysis of events in a digital forensic investigation
4. Discuss the legal issues involved in a forensic investigation and in current professional forensic practice
5. Prepare a design and report for a digital forensic investigation.

The 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:

- Digital forensics (DGFS)
- Network Support (NTAS)
- Penetration testing (PENT)
- Problem Management (PBMG)
- Data Analysis (DTAN)
- Service Desk and Incident Management (USUP)

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level ∘ Introductory Level • Intermediate Level • Graduate Level ∘ Professional Level ∘ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - In-class Test(s) - 20%	•			•	
2 - Written Assessment - 30%		•	•	•	•
3 - Take Home Exam - 50%	•	•	•		•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•			•	•
2 - Problem Solving			•		•
3 - Critical Thinking		•	•		
4 - Information Literacy				•	•
5 - Team Work					•
6 - Information Technology Competence	•		•		
7 - Cross Cultural Competence				•	
8 - Ethical practice		•		•	•
9 - Social Innovation					
10 - 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	9	10
1 - In-class Test(s) - 20%		•				•		•		
2 - Written Assessment - 30%	•	•	•	•	•	•	•	•		
3 - Take Home Exam - 50%		•	•	•		•		•		

Textbooks and Resources

Textbooks

COIT12201

Prescribed

Guide to Computer Forensics and Investigations
Edition: 6th edn (2018) (2018)
Authors: B Nelson, A Phillips, C Steuart
Cengage Learning
Florence , KY , USA
ISBN: 9781337568944
Binding: Paperback

Additional Textbook Information
If you prefer to study with a paper copy, they are available at the CQUni Bookshop here: http://bookshop.cqu.edu.au (search on the Unit code). eBooks are available at the publisher's website.

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Computer forensic software and student data files (with "Lab Manual for Guide to Computer Forensics and Investigations (4th ed)" by A. Blitz)
- MindTap - Cloud based virtual lab integrated in Moodle unit website

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Jahan Hassan Unit Coordinator
j.hassan@cqu.edu.au

Schedule

Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Understanding the Digital Forensics Profession and Investigations	Chapter 1	

Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Forensic investigation examples and the Investigator's Office and Laboratory	Chapter 1 and Chapter 2	

Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic

Data Acquisition	Chapter 3	**Assessment 1(In-class test): Online Quiz 1**

Week 4 - 03 Aug 2020

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

Week 5 - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Digital forensics tools	Chapter 6	**Assessment 1(In-class test): Online Quiz 2**

Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Understanding Windows, Linux and Macintosh Systems	Chapter 5 and Chapter 7	

Week 7 - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Recovering Graphic Files	Chapter 8	**Assessment 1(In-class test): Online Quiz 3**

Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Digital Forensics Analysis and Validation	Chapter 9	

Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Virtual Machine Forensics, Live Acquisitions, and Network Forensics E-mail and Social Media Investigations	Chapter 10 and Chapter 11	**Assessment 1(In-class test): Online Quiz 4**

Week 10 - 21 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Mobile Device Forensics	Chapter 12	**Assessment 2 (Written Assessment) Digital Forensic Investigation Due: Week 10 Friday 12:55 PM AEST** **ASSESSMENT ITEM 2: DIGITAL FORENSIC INVESTIGATION** Due: Week 10 Friday (25 Sept 2020) 12:55 pm AEST

Week 11 - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Cloud Forensics and Report writing	Chapter 13 and Chapter 14	**Assessment 1(In-class test): Online Quiz 5**

Week 12 - 05 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Ethics and Final Exam review	Chapter 16 and exam advice	

Review/Exam Week - 12 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 19 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

For more information contact the Unit Coordinator: **Dr Jahan Hassan**, E-mail: j.hassan@cqu.edu.au

Assessment Tasks

1 ASSESSMENT ITEM 1: ONLINE QUIZZES

Assessment Type
In-class Test(s)

Task Description

The Quizzes are to complement the theoretical knowledge learned from the lectures/textbook. They provide you with exercises to practice your knowledge and skills of the related topics.

- There are five (5) weekly Online Moodle Quizzes on **Weeks 3, 5, 7, 9, and 11**.
- Each quiz is worth 4% of the total grade.
- The quizzes are open book, implying that you are allowed to consult the prescribed textbook, lab manuals, lecture notes, and notes prepared by you.
- There will be a time limit to finish the quiz.

Detailed instructions regarding the quizzes will be provided on Moodle during the term.
This assessment is to be done on an individual basis.

Assessment Due Date

Week 3, week 5, week 7, week 9 and week 11; online via Moodle unit Website

Return Date to Students

Week 3, week 5, week 7, week 9 and week 11; online via Moodle unit Website

Weighting
20%

Assessment Criteria
The students are assessed against their ability to:
1. understand the weekly content covered in lectures,
2. identify the links between lecture content and lab activities,
3. determine the best course of action for a specific investigation scenario.

There will be no extensions allowed for any of the quizzes.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Online via Moodle Website

Learning Outcomes Assessed

- Define electronic crime and digital forensics
- Discuss the legal issues involved in a forensic investigation and in current professional forensic practice

Graduate Attributes

- Problem Solving
- Information Technology Competence
- Ethical practice

2 ASSESSMENT ITEM 2: DIGITAL FORENSIC INVESTIGATION

Assessment Type
Written Assessment

Task Description

This assessment is divided into two parts:

Part A: Practical (Hands-on) investigation (50%) {To be included it the written report}.
Part B: Written report detailing the practical investigation in Part A and findings based on this investigation (50%).
The assessment requires you to

1. investigate a case using digital forensic tools that you are legally allowed to use,
2. write a report that will detail your investigation process, tools, and techniques,
3. analyse the case based on your investigation and present your findings in the report,
4. Discuss the legal and ethical issues involved in a forensic investigation.

Details about this assessment will be available on Moodle unit Website.

Assessment Due Date
Week 10 Friday (25 Sept 2020) 12:55 pm AEST

Online via Moodle

Return Date to Students
Week 12 Friday (9 Oct 2020)

Online via Moodle

Weighting
30%

Assessment Criteria
The students are assessed mainly against their ability to:
1. apply the digital forensics methodologies
2. identify appropriate tools and techniques
3. report the findings in a clear and cohesive manner
4. identify legal and ethical issues relevant to the investigation
5. conduct an investigation in a legal and ethical manner.

Referencing Style

- Harvard (author-date)

Submission
Online Group

Submission Instructions
Online via Moodle

Learning Outcomes Assessed

- Describe the role of digital forensic professionals in investigation and prevention of electronic crime in business environments
- Apply a systematic approach to the capture, recording, and analysis of events in a digital forensic investigation
- Discuss the legal issues involved in a forensic investigation and in current professional forensic practice
- Prepare a design and report for a digital forensic investigation.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking

- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

3 ASSESSMENT ITEM 3: TAKE-HOME EXAM

Assessment Type
Take Home Exam

Task Description
Refer to the Moodle unit website for details.

Assessment Due Date

Take-home exam will be held during the Term-2 examination period. Specific date and time to be advised via Moodle.

Return Date to Students

Grade/Mark will be released after certification

Weighting
50%

Assessment Criteria
Refer to the Moodle unit website for details.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Refer to Moodle unit website for details.

Learning Outcomes Assessed

- Define electronic crime and digital forensics
- Describe the role of digital forensic professionals in investigation and prevention of electronic crime in business environments
- Apply a systematic approach to the capture, recording, and analysis of events in a digital forensic investigation
- Prepare a design and report for a digital forensic investigation.

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Ethical practice

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