



# SCIE11018 *Introduction to Forensic Science*

## Term 3 - 2019

Profile information current as at 20/04/2024 07:48 am

All details in this unit profile for SCIE11018 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

This unit has been designed as an introductory level unit with broad appeal to a wide range of students. For example, students studying health, social work, nursing, psychology, education or business as well as those studying science-based subjects might consider this elective option offered by online delivery (distance education). Its aim is to enable you to develop an appreciation of contemporary forensic analysis, with a particular emphasis on understanding DNA methods and applications. Topics studied includes: the scope of forensic science; how crime scenes are processed and how trace evidence from such scenes is collected and analysed; the different types and significance of trace evidence, including hairs, fibres and fingerprints; forensic investigations of fires and explosions; forensic examination of body fluids and human remains; forensic DNA methods. The unit involves online group discussions, peer evaluation and self-assessment within some of the assessment tasks. You will also undertake literature research on aspects of DNA profiling as part of the written assessment.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

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 3 - 2019

- Online

### 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. **Group Discussion**

Weighting: 20%

#### 2. **Written Assessment**

Weighting: 50%

#### 3. **Online Quiz(zes)**

Weighting: 30%

### 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 Student emails and self-reflection.

##### Feedback

The Hot Topic Discussion Forums assessment (Assessment 1) causes confusion with the students. There is no minimum mark. The unit profile states that students do not have to do this assessment, however, student that do not do the assessment and do not achieve a pass in another assessment, will not qualify for a supplementary assessment. As this is not a compulsory assessment piece, some students choose not to contribute to any/all the forums. In some instances, this results in a Fail grade when other assessment minimums are not met. Three out of the five forums are randomly chosen for grading. This also causes confusion if students have not posted to the forums that have been selected for grading.

##### Recommendation

The graded forums need to be identified. The forums need to be made compulsory and have a minimum mark.

## Unit Learning Outcomes

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

1. Explain the scope and application of contemporary forensic science.
2. Discuss, using specific case examples, the underlying principles governing forensic crime analysis.
3. Explain the practical roles of the various sections of the forensic laboratory in the scientific investigation of different types of crime.
4. Evaluate forensic journal articles, case information and other evidence in relation to contemporary forensic science.
5. Engage in self-assessment, peer-assessment and group discussion with respect to forensic science topics.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Group Discussion - 20%					•
2 - Online Quiz(zes) - 30%	•		•		
3 - Written Assessment - 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 - Group Discussion - 20%	•		•	•	•	•		•		
2 - Online Quiz(zes) - 30%		•	•			•				
3 - Written Assessment - 50%	•		•	•				•		

## Textbooks and Resources

### Textbooks

**There are no required textbooks.**

### 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 styles below:

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Olivia Daniels** Unit Coordinator  
[o.daniels@cqu.edu.au](mailto:o.daniels@cqu.edu.au)

## Schedule

### Week 1 - 11 Nov 2019

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• Introduction</li><li>• Assessing the crime scene</li></ul>	Textbook chapter: <ul style="list-style-type: none"><li>• The crime scene.</li></ul>	

### Week 2 - 18 Nov 2019

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• Forensic microscopy</li><li>• Isotopes in hair, fibres and paints</li></ul>	Textbook chapter: <ul style="list-style-type: none"><li>• The microscope and its forensic applications</li><li>• Hair and fibres</li></ul>	Hot Topic discussion forum 1 opens on the 18/11/19 at 12:00 AM and closes on the 25/11/19 at 12:00 AM.

### Week 3 - 25 Nov 2019

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• Fingerprints</li></ul>	Textbook chapter: <ul style="list-style-type: none"><li>• Fingerprints.</li></ul>	Hot Topic discussion forum 1 closes (25/11/19 at 12:00 AM.) Hot Topic discussion forum 2 opens on the 25/11/19 at 12:00 AM and closes on the 02/12/19 at 12:00 AM.

### Week 4 - 02 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• DNA</li></ul>	Textbook chapter: <ul style="list-style-type: none"><li>• DNA</li></ul>	Hot Topic discussion forum 2 closes (02/12/19 at 12:00 AM.) Hot Topic discussion forum 3 opens on the 02/12/19 at 12:00 AM and closes on the 09/12/19 at 12:00 AM.

### Vacation Week - 09 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
		Hot Topic discussion forum 3 closes (09/12/19 at 12:00 AM.)

### Week 5 - 16 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• Serology and blood stain analysis</li></ul>	Textbook chapter: <ul style="list-style-type: none"><li>• Forensic serology.</li></ul>	<b>'Hot topic' discussion forums</b> Due: Week 5 Monday (16 Dec 2019) 12:00 am AEST

### Week 6 - 23 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
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- Fire and explosions
- Textbook chapter:
- Investigation of arson and explosions

### Week 7 - 06 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
• Firearms and other impressions	Textbook chapter: • Firearms, tool marks and other impressions	

### Week 8 - 13 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
• Radiocarbon in teeth		<b>Contributions to forensic science</b> Due: Week 8 Monday (13 Jan 2020) 12:00 am AEST

### Week 9 - 20 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
• Drugs and toxicology	Textbook chapter: • Drug abuse and drug evidence	

### Week 10 - 27 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
• Forensic anthropology, Body Farm research	Textbook chapter: • The role of forensic experts in death investigation.	

### Week 11 - 03 Feb 2020

Module/Topic	Chapter	Events and Submissions/Topic
• Forensic psychology	There are no Textbook chapters for this topic.	

### Week 12 - 10 Feb 2020

Module/Topic	Chapter	Events and Submissions/Topic
• Forensic pathology	Textbook chapter: • The role of forensic experts in death investigation.	<b>Online quiz</b> Due: Week 12 Monday (10 Feb 2020) 12:00 am AEST

### Exam Week - 17 Feb 2020

Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

The Unit Coordinator for this unit is Dr. Olivia Daniels. I can be emailed on o.daniels@cqu.edu.au.

## Assessment Tasks

### 1 'Hot topic' discussion forums

#### Assessment Type

Group Discussion

#### Task Description

This assessment is based on your posts to the Hot Topic group discussion forums in Moodle. There will be three (3) graded Hot Topic forums. To get the best possible mark, you will need to contribute to all three forums. It is also recommended that you aim for five posts per forum. Each of the forums will be open for 7 days only, therefore, you will need to post to the forum within this time period. The opening and closing dates/times are listed in the Schedule section of this Unit Profile. The first forum will be open in week 2, the second in week 3 and the third in week 4. Your overall marks for the three forums will be released by the return date specified in this section. More help with this assessment

will be available on the unit Moodle site.

In order to make this more effective for you, the class will be divided into groups of around twenty-five or so students, so that you don't have to read posts from everyone taking the unit this year (this change has been made in response to student feedback from earlier years, because working through all of the discussion board posts was too time-consuming).

***There is no minimum mark for this assessment therefore you do not have to complete it. However, if you do not contribute to the forums and do not pass an assessment in this unit, you will NOT qualify for a supplementary assessment (SA), resulting in a Fail grade.***

### **Assessment Due Date**

Week 5 Monday (16 Dec 2019) 12:00 am AEST

Contribution to the discussion forums will be assessed at the end of Week 5.

### **Return Date to Students**

Week 7 Monday (6 Jan 2020)

You will be provided with a feedback sheet.

### **Weighting**

20%

### **Assessment Criteria**

Note: each assessment criterion will be marked on a scale from 0 to 5, giving a total of 20 marks across all four criteria:

1. **Quality of contributions** - in terms of their relevance to the discussion.
2. **Scholarly contributions** - based on evidence of use of wider reading and academic 'detective work', to address the discussion topic.
3. **Breadth of contributions** - based on the number of relevant postings within the forum.
4. **Interactivity of contributions** - engages in discussion with other student posts.

**There is more help available on Moodle for this assessment.**

### **Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

### **Submission**

Online

### **Submission Instructions**

Students must contribute to the 'Hot topic' discussion forums.

### **Learning Outcomes Assessed**

- Engage in self-assessment, peer-assessment and group discussion with respect to forensic science topics.

### **Graduate Attributes**

- Communication
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

## 2 Contributions to forensic science

### **Assessment Type**

Written Assessment

### **Task Description**

Over the past century, advancements in forensic science have changed the way that many crime scenes have been processed. Greater scientific understanding, improved methodologies and new technologies have all contributed to the body of evidence used in criminal prosecutions.

Please choose one topic from the list below to investigate in detail and write an essay discussing its contribution to forensic science. Your discussion should include details of the historic development and improvement of methods and technologies, the use or misuse of evidence in criminal prosecutions, and the application and limitations (pros and cons)

of this area of evidence. Your discussion should also be supported with appropriate case examples.

- Hairs and fibres
- Fingerprints
- DNA
- Serology
- blood stain analysis
- Firearms
- other impressions
- Drugs
- toxicology
- Forensic archaeology
- Forensic pathology
- Forensic psychology

Your assessment should be approximately 1500 words (absolute maximum of 1800 words), and should be written using correct grammar and English expression. It should be well-presented using a plain text such as Times New Roman or Arial size 12 font. Please use 'double space' line spacing and do not use background images or themes. Include a cover page with your name, student number and a title. **There is more help available on Moodle for this assessment. All essays will automatically be submitted to the similarity detection website Turnitin, in accordance with CQUniversity policy. Please ensure all work is your own and has not previously been submitted elsewhere.**

#### **Assessment Due Date**

Week 8 Monday (13 Jan 2020) 12:00 am AEST

Students must submit their assessment via the unit Moodle site.

#### **Return Date to Students**

Week 11 Monday (3 Feb 2020)

Your marked assessment will be returned via Moodle.

#### **Weighting**

50%

#### **Minimum mark or grade**

50 %

#### **Assessment Criteria**

Marks will be awarded for:

- Original style and arguments (10 marks).
- Argument clearly and logically explained in the student's own words without unexplained technical terms or great slabs of quotation (10 marks).
- Very well written — no 'there' where 'their' is appropriate, 'it's' where 'its' should be, 'don't' were 'do not' etc. should be used, with no grammatical errors (30 marks).
- Contribution of the topic to forensic science (30 marks)
- Pros and cons of the topic clearly argued in terms of its applications and limitations to forensic science (30 marks).
- Discussion appropriately supported by case examples (20 marks).
- Appropriate citations used and referencing consistent in format throughout (10 marks).
- Neat, double spaced, using size 12 font. Adheres to the word limit (10 marks).
- Tables and figures, if used are well presented, titled and referred to in the text (10 marks).

#### **Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

#### **Submission**

Online

#### **Learning Outcomes Assessed**

- Explain the scope and application of contemporary forensic science.
- Discuss, using specific case examples, the underlying principles governing forensic crime analysis.
- Evaluate forensic journal articles, case information and other evidence in relation to contemporary forensic science.



## Graduate Attributes

- Communication
- Critical Thinking
- Information Literacy
- Ethical practice

## 3 Online quiz

### Assessment Type

Online Quiz(zes)

### Task Description

This assessment task will take the form of a 45 minute online 'open book' multiple choice quiz in Moodle. There are 30 questions drawn from a pool, based on material derived from the weekly learning materials. The quiz questions cover all of the topics from week 1 to week 11 inclusive.

**It is essential that you have studied all the material on these topics by the date of the assessment so that you are well-prepared to make the most of the quiz.** While the 'open book' nature of the quiz will enable you to make one or two checks for those questions where you are unsure of the exact answer, you will not have enough time to read material 'from scratch'. Please ensure that you are well-prepared to take the assessment.

A trial version of the online quiz will be available in Moodle before attempt the assessment itself.

**Note - make sure that you 'submit' your answers before the time is up, or you will be 'timed out' after a maximum of 45 minutes, and all of your answers will be lost.**

**The quiz will open two weeks prior to the due date of the assessment. This assessment task must be completed by the due date specified. In the absence of an approved extension, there will be no opportunity to complete the quiz at a later date.**

**If you have any technical problems during the quiz itself, you need to contact the unit coordinator, Olivia Daniels as soon as possible on the day of the assessment. Contact details will be available on the unit Moodle site.**

### Number of Quizzes

1

### Frequency of Quizzes

Other

### Assessment Due Date

Week 12 Monday (10 Feb 2020) 12:00 am AEST

You must start this quiz at least one hour before the quiz closes.

### Return Date to Students

Exam Week Monday (17 Feb 2020)

Student will receive their mark for the quiz as feedback immediately on completion of the quiz (details of correct answers to each question are not released, as some questions may be re-used in subsequent assessments).

### Weighting

30%

### Minimum mark or grade

To pass this unit and demonstrate that you have met the learning outcomes, you need to score at least 50 % for the quiz.

### Assessment Criteria

Each answer will be given 1 mark if correct and 0 marks if incorrect (30 marks in total).

There will be no negative marking, so you should attempt all 30 questions.

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

### Submission

Online

## Learning Outcomes Assessed

- Explain the scope and application of contemporary forensic science.
- Explain the practical roles of the various sections of the forensic laboratory in the scientific investigation of different types of crime.

## Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Technology Competence

## 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