AINV12003 *Victim Pathology*
Term 2 - 2019

Profile information current as at 12/10/2024 02:01 pm

All details in this unit profile for AINV12003 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 will provide students with an alternative approach to traditional methods of accident reconstruction. Students will begin with the study of nature of injury pathology, and learn how different regions of the human body react with different tolerance to impact trauma. The body is comprised of tissues, which also have different tolerance to force and acceleration. Students will then learn the use of victim pathology as the starting point for research or investigation in case studies ranging from simple vehicle collisions to very complex cases of multi-system severe or fatal injuries sustained where factual data may be sparse, or non existing. Students will solve cases of misadventure resulting in death or severe traumatic injuries, based on the methods of victim pathology.

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
48 credit points
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 - 2019

- Adelaide
- Brisbane
- Bundaberg
- Gladstone
- Mackay
- Melbourne
- Online
- Perth
- Rockhampton
- 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 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. **Written Assessment**
Weighting: 30%
2. **Written Assessment**
Weighting: 40%
3. **Written Assessment**
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 Unit Coordinator reflections

Feedback

The assessments in this unit have been continually altered and improved over the previous few offerings, and there is potential room for further improvement.

Recommendation

The wording of assessment descriptions and criteria may need to be revisited for clarity.

Feedback from Student feedback

Feedback

Although students typically enjoy this unit, more emphasis could be placed on contextualising learning to improve understanding of its utility.

Recommendation

Expand upon the final topic 'Contextualising Victim Pathology' to provide more numerous examples of the utility of this discipline area to the broader scientific and investigative community.

Feedback from Unit Coordinator reflections

Feedback

Some of the materials in this unit graphically depict the human body in states of extreme injury, including images of deceased persons. These images may be unsettling or disturbing, but are nevertheless necessary for the study of pathoanatomy.

Recommendation

Continue to provide graphic content warnings, particularly early in the term and especially before Census date.

Unit Learning Outcomes

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

1. Analyse the relevance of victim pathology in establishing causality.
2. Explain and elaborate on differential human tolerance to trauma based on tissues and body regions.
3. Interpret published data on human tolerance to impact.
4. Analyse complex case scenarios involving multiple severe or fatal traumatic injuries and determine likely causal events.
5. Demonstrate reflective skills appropriate to the development of the intermediate practitioner.
6. Demonstrate ability in confidentiality and ethical practice appropriate for a forensic practitioner.

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	6
1 - Written Assessment - 30%	•	•	•	•	•	•

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
2 - Written Assessment - 40%	•	•	•	•	•	•
3 - Written Assessment - 30%	•	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - Written Assessment - 30%	•	•	•	•	•	•	•	•		
2 - Written Assessment - 40%	•	•	•	•	•	•	•	•		
3 - Written Assessment - 30%	•	•	•	•		•	•	•		

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 style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Shevaun Dell Unit Coordinator
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Schedule

Week 1 - 15 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Victim Pathology, Assessments and Pathoanatomy	Reading: Lee, K 2004, The role of the pathologist at the crime scene. In Horswell, J (ed), *Practice of Crime Scene Examination.* Taylor & Francis: New York, NY. This e-book is available from the CQU library in its entirety. While it is a great read, **for this week's topic read Chapter 11 (pages 195-239).**	

Week 2 - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Post-mortem Examinations	Reading: Ranson, DL & Firth, N 2016, Forensic Pathology. In Taylor, JA & Kieser, JA (eds), *Forensic Odontology: Principles and Practice.* John Wiley & Sons: Hoboken, NJ. **For this week's topic, read pages 134-155.**	

Week 3 - 29 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Basic Biomechanics	Reading: Kieser, J 2013, Basic Principles of Biomechanics. In Kieser, J, Taylor, M & Carr, D (eds), *Forensic Biomechanics.* John Wiley & Sons: Hoboken, NJ. **For this week's topic, read this whole chapter.**	

Week 4 - 05 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Human Tolerance Data	Reading: Society of Automotive Engineers, Inc.1996, *SAE Vehicle Occupant Restraint Systems and Components Standards Manual - 1996 Edition.* Author: Warrendale, PA. This document will be very useful for the rest of the term, as it contains data tables with human tolerance limits under different conditions. **For this week's topic, familiarise yourself with this document.**	

Week 5 - 12 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Blunt Force Trauma	Reading: Ranson, DL & Firth, N 2016, Forensic Pathology. In Taylor, JA & Kieser, JA (eds), *Forensic Odontology: Principles and Practice.* John Wiley & Sons: Hoboken, NJ. **This week, read pages 155-166**. The text discusses some injury types that we will be looking at over the next few weeks, as well as some important information about injury interpretation (useful for assessment items 2 and 3!)	**Foundations of Victim Pathology** Due: Week 5 Friday (16 Aug 2019) 5:00 pm AEST

Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 26 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Sharp Force Trauma & Projectile Injuries	No specific readings for this week, however example case materials may be provided on Moodle for this topic.	

Week 7 - 02 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Drowning and Asphyxia	No specific readings for this week, however example case materials may be provided on Moodle for this topic.	

Week 8 - 09 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Injuries due to Temperature and Electricity	No specific readings for this week, however example case materials may be provided on Moodle for this topic.	

Week 9 - 16 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Skeletal Injuries	Reading: Duckworth, T & Blundell, CM 2010, Fractures and healing. In Duckworth, T & Blundell, CM (eds), *Lecture Notes: Orthopaedics and Fractures, 4e.* Blackwell Publishing: Hoboken, NJ. **For this week's topic, read this whole chapter.**	**Injury Presentation Analysis** Due: Week 9 Friday (20 Sept 2019) 5:00 pm AEST

Week 10 - 23 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic

Injuries to the Nervous System	Reading: Kleiven, S 2010, Why most traumatic brain injuries are not caused by linear acceleration but skull fractures are. *Bioengineering and Biotechnology*, vol. 1. doi: 10.3389/fbioe.2013.00015 This article explores some of the different brain injuries that may be associated with rotational kinematics. **For this week's topic, read this article.**	

Week 11 - 30 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Internal Injuries - Organ Damage	No specific readings for this week, however example case materials may be provided on Moodle for this topic.	

Week 12 - 07 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
Unexpected Natural Deaths Contextualising Victim Pathology - Informing your Future Investigation Practice	Reading: Christian, MS 1988, Incidence and implications of natural deaths of road users. *British Medical Journal,* vol. 297, pp. 1021-1024. This article describes a study conducted from 1978 to 1987 in which car crash fatality cases were examined for indications of driver sudden natural death. **For this week's topic, read this article.**	**Pathoanatomy Predictions** Due: Week 12 Friday (11 Oct 2019) 5:00 pm AEST

Review/Exam Week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 21 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Foundations of Victim Pathology

Assessment Type
Written Assessment

Task Description
Using the material provided on Moodle and a minimum of three additional appropriately-referenced reputable sources, develop a written submission which addresses the following three prompts:
1. Describe the basic principles of pathoanatomy and biomechanics
2. Discuss the limitations associated with the use of human tolerance reference data
3. Explain the steps involved in a typical autopsy process
As a guide, you should be aiming for 500-750 words for each of the three components of this submission.

Assessment Due Date
Week 5 Friday (16 Aug 2019) 5:00 pm AEST

Return Date to Students
Week 7 Friday (6 Sept 2019)

Marks and Feedback will be provided via the Moodle site for this unit.

Weighting
30%

Assessment Criteria
Your written submission will be graded on the accuracy of your response, and the depth to which you:

- Describe the basic principles of pathoanatomy and biomechanics, including the following concepts: pathoanatomy, pathophysiology, systematic pathoanatomy, stress, strain, elasticity and viscoelasticity (10 marks)
- Discuss the limitations associated with the use of human tolerance reference data (10 marks)
- Explain the steps involved in a typical autopsy process (10 marks)
- Utilise and appropriately reference at least 3 reputable sources in accordance with Harvard Referencing Style (Non-graded requirement)

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Upload your submission for this assignment as a Word document or PDF to the appropriate assessment page on Moodle. Please ensure your name is included in the file name.

assessmentOutcome

- Analyse the relevance of victim pathology in establishing causality.
- Explain and elaborate on differential human tolerance to trauma based on tissues and body regions.
- Interpret published data on human tolerance to impact.
- Analyse complex case scenarios involving multiple severe or fatal traumatic injuries and determine likely causal events.
- Demonstrate reflective skills appropriate to the development of the intermediate practitioner.
- Demonstrate ability in confidentiality and ethical practice appropriate for a forensic practitioner.

assessmentGradAttribute

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

2 Injury Presentation Analysis

Assessment Type
Written Assessment

Task Description
Part A (20%)
Using the material provided on Moodle and a minimum of two additional appropriately-referenced reputable sources, answer the following questions:
1. What are the differences between contusions, abrasion, lacerations and incisions?
2. What are some differences in injury presentation that you would expect to find between self-inflicted injuries and those inflicted by external agents?
As a guide, you should be aiming for 750-1000 words for each answer.
Part B (20%)
Choose one of the trauma cases presented on Moodle. Imagine you are the investigator and you have been asked to provide advice on the nature and aetiology of the trauma. Analyse the case within the context of the topics covered so far, and present an opinion of the pathophysiology. Identify your selected case, and include:
1. A marked-up figure sketch indicating the apparent pathoanatomy
2. A systematic description of the internal and external injuries, using the systematic pathoanatomy structure provided in the unit
3. Your considered opinion regarding how the deceased may have incurred those injuries, with reference to biomechanical principles and human tolerance data.
As a guide, you should be aiming for 1500-2000 words for Part B.

Assessment Due Date
Week 9 Friday (20 Sept 2019) 5:00 pm AEST

Return Date to Students
Week 11 Friday (4 Oct 2019)

Marks and Feedback will be provided via the Moodle site for this unit.

Weighting
40%

Assessment Criteria
Part A
You will be assessed on the depth to which you have:

- Explained the differences between contusions, abrasion, lacerations and incisions (10 marks)
- Discussed some expected differences in injury presentation between self-inflicted injuries and those inflicted by external agencies (10 marks)
- Utilised and appropriately referenced at least 3 reputable sources in accordance with Harvard Referencing Style (Non-graded requirement).

Part B
You will be assessed on the depth to which you have:

- Marked up the figure sketch to indicate all apparent pathoanatomy (both internal and external) (4 marks)
- Systematically described all of the injuries evident from the case material, using the systematic pathoanatomy structure provided in the unit (7 marks)
- Explained your considered opinion regarding how the deceased may have incurred those injuries, justifying your position with reference to biomechanical principles and human tolerance data (9 marks).

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Upload your submission for this assignment as a Word document or PDF to the appropriate assessment page on Moodle. Please ensure your name is included in the file name.

assessmentOutcome

- Analyse the relevance of victim pathology in establishing causality.
- Explain and elaborate on differential human tolerance to trauma based on tissues and body regions.
- Interpret published data on human tolerance to impact.
- Analyse complex case scenarios involving multiple severe or fatal traumatic injuries and determine likely causal events.
- Demonstrate reflective skills appropriate to the development of the intermediate practitioner.
- Demonstrate ability in confidentiality and ethical practice appropriate for a forensic practitioner.

assessmentGradAttribute

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

3 Pathoanatomy Predictions

Assessment Type
Written Assessment

Task Description
Victim Pathology is primarily concerned with examining the final result of an accident or traumatic scenario, and working

backwards from these to establish what happened. In this assessment item, you need to work forwards from the scenario and predict the injuries expected, demonstrating your understanding of the aetiology of injuries. Consider each of the three following scenarios:
1. A car collides with a pedestrian at 60km/h (victim is the pedestrian)
2. A car collides with a tree at 100km/h (victim is the driver)
3. A fall of a person from a height of 6m
Explore each scenario, systematically describing the pathoanatomy presentations that you would expect to observe following these events (use the systematic pathoanatomy structure provided in the unit). In your submission, justify your position with reference to biomechanical principles and human tolerance data.
As a guide, you should be aiming for 1000 words for each scenario.

Assessment Due Date
Week 12 Friday (11 Oct 2019) 5:00 pm AEST

Return Date to Students
Exam Week Friday (25 Oct 2019)

Marks and Feedback will be provided via the Moodle site for this unit.

Weighting
30%

Assessment Criteria
For each of the three scenarios, you will be assessed on the depth to which you have:

- Systematically described the pathoanatomy presentations that you would expect to observe following the event, using the systematic pathoanatomy structure provided in the unit (5 marks)
- Justified for your position with reference to biomechanical principles and human tolerance data (5 marks).

(Total 30 marks)

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Upload your submission for this assignment as a Word document or PDF to the appropriate assessment page on Moodle. Please ensure your name is included in the file name.

assessmentOutcome

- Analyse the relevance of victim pathology in establishing causality.
- Explain and elaborate on differential human tolerance to trauma based on tissues and body regions.
- Interpret published data on human tolerance to impact.
- Analyse complex case scenarios involving multiple severe or fatal traumatic injuries and determine likely causal events.
- Demonstrate reflective skills appropriate to the development of the intermediate practitioner.
- Demonstrate ability in confidentiality and ethical practice appropriate for a forensic practitioner.

assessmentGradAttribute

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural 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