AINV13003 *Crash Lab Project 1*
Term 1 - 2019

Profile information current as at 19/05/2022 11:00 pm

General Information

Overview
This unit will provide students the opportunity to consolidate and apply all of the accident investigation and analysis theory studied in the Accident Forensics course to a real accident scenario. Learners will take a leadership role in planning and conducting a detailed accident investigation. Post investigation the learner will be required to analyse the accident causation sequences and linkages by applying an event tree or equivalent method.

Details
Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Prereq: AINV11001 Real World Investigation and AINV11002 Socio-technical Systems and AINV12001 Investigation Methods Practice and AINV12002 Accident Phenomenology and AINV12003 Accident Forensics and coreq: AINV13001 Accident Analysis
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 1 - 2019

- Adelaide
- Brisbane
- Bundaberg
- Gladstone
- Melbourne
- Mixed Mode
- 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).

Residential Schools
This unit has a Compulsory Residential School for distance mode students and the details are:
Click here to see your Residential School Timetable.

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: Pass/Fail
2. **Practical and Written Assessment**
Weighting: 50%
3. **Written Assessment**
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 Have your say

Feedback

Provide more information on event tree analysis prior to the residential school

Recommendation

Event tree analysis to be reinforced in AINV12001, as well as revision in the weeks leading up to the residential school in this unit.

Feedback from Have your say

Feedback

Facilitate the residential school earlier in the term to provide more time for students to work on their accident analysis

Recommendation

Review the order of presentation of modules and determine if a change of residential school dates is necessary or warranted.

Unit Learning Outcomes

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

1. Plan and conduct a detailed accident investigation.
2. Analyse the accident causation sequences and linkages by applying an event tree or equivalent method.
3. Employ effective communication strategies appropriate to a major accident investigation.
4. Demonstrate reflective skills appropriate to the development of the graduating 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
1 - Group Discussion - 0%			•	•
2 - Practical and Written Assessment - 50%	•	•	•	•
3 - Written Assessment - 50%	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - 0%	•		•	•		•	•	•		
2 - Practical and Written Assessment - 50%	•	•	•	•	•	•	•	•		
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 style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Kevin Perry Unit Coordinator
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Schedule

Week 1 - 11 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Introduction and Course Overview • Unit expectations • Residential school • Final report expectations		

Week 2 - 18 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Scene Management - What do we know and what do we need to know?: • Powers • Site management • Evidence collection • Witness management	Reading - Evidence guide	Zoom Tutorial : Legal Professional Privilege

Week 3 - 25 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Digging Deeper • Other sources of evidence • Thinking 'outside the square' • Planning more in-depth. • Requesting information		Group Discussion Q1 due (25 March 19) 09:00 AM AEST Zoom Tutorial : Media Management

Week 4 - 01 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Collating the Data - What are your facts? • Facts v assumptions • Sorting the 'wheat from the chaff' • Verifying and validating facts.		Zoom Tutorial : Putting RWI and STS to work

Week 5 - 08 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Collating the Data - Creating logic diagrams • Event trees • PEEPO		Zoom Tutorial : Practice at building a logic diagram from facts

Vacation Week - 15 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
		Group Discussion Q2 due (15 April 19) 09:00 hrs AM AEST

Week 6 - 22 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Review of AINV Material Collating the Data - Extending your lines of enquiry		Group Discussion Q3 due (22 April 19) 09:00 AM AEST

Week 7 - 29 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Final Crash Lab Preparations • Leading Teams • Final preparation • Expectations / professionalism • Explanation of processes required		Risk Assessment due for residential school.

Week 8 - 06 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Residential School : 6 -10 May • Management of accident scenario • Assistant investigator • Collecting of evidence • Delivering presentation		Residential School 6 - 10 May, Bundaberg Crash Lab Portfolio assessed during residential school

Week 9 - 13 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Conducting your Accident Analysis • Developing your Preliminary Analysis		Online submission of residential school presentation slides due (7 May 2018) 09:00 AM AEST Zoom Tutorial : Analysing your event tree with an HF lens

Week 10 - 20 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Narratives & Reflections • Writing narratives accurately • Reflecting and using this in future work.		Group Discussion Q4 due (20 May 19) 09:00 AM AEST Zoom Tutorial : Road Testing your Logic Diagram

Week 11 - 27 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
No lecture Independent work on accident analysis diagrams and narrative.		Zoom Q & A session (if required)

Week 12 - 03 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic
No lecture Independent study		**Preliminary report & Reflection** Due: Week 12 Monday (3 June 2019) 9:00 am AEST

Review/Exam Week - 10 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 17 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Preparing for the crash lab and analysis

Assessment Type
Group Discussion

Task Description
In this assessment task, your lecturer will start discussions in Moodle which will continue throughout the term, exploring key topics. These discussions will help you to prepare for the Crash Lab residential school and to start the analysis of

your accident. Four specific discussion questions will be posted and you must participate in all four of these discussions. In each thread you must post your own submission and respond constructively to at least one other student's post.
In your career, you will find yourself discussing points of view and you need to be able to argue your position effectively. These questions will give you practice in this skill and also get you thinking about your learning in the Bachelor of Accident Forensics course to date, helping you prepare for the residential school and reporting activities.
More details about this assessment and the discussion questions themselves will be posted on the Moodle site throughout the term.
This is a Pass/Fail Discussion Assessment.

Assessment Due Date

Question 1 due 0900 Mon 25 March 2019; Question 2 due 0900 Mon 15 April 2019; Question 3 due 0900 Mon 22 April 2019; Question 4 due 0900 Mon 20 May 2019

Return Date to Students

Two weeks after the submission date

Weighting
Pass/Fail

Minimum mark or grade
Students must pass all four discussion questions to pass this assessment.

Assessment Criteria
For each discussion thread, you must post an answer which reflects your thoughts based on your readings and learnings in the Bachelor of Accident Forensics to date (remember your referencing too!). Ensure that in your post for each discussion thread, you must:

- demonstrate your understanding of the question
- state your position or argument clearly and concisely
- support your position or argument with authoritative sources that are appropriately referenced.

When you respond to another student's post in each of the discussion threads, engage constructively and respectfully with what they have said. For example, you could say whether you agree or disagree with them and explain why briefly, or you could take what they have said and extend it with another example.
Hint : Remember, these are discussions, NOT essays, a couple of paragraphs at most should do it.
The lecturer will provide progressive feedback on these discussion questions.
This is a Pass/Fail Discussion Assessment.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Post your submission and responses in the Assessment area in Moodle

Learning Outcomes Assessed

- Employ effective communication strategies appropriate to a major accident investigation.
- Demonstrate reflective skills appropriate to the development of the graduating practitioner.

Graduate Attributes

- Communication
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

2 Crash Lab Activities & Portfolio

Assessment Type
Practical and Written Assessment

Task Description
The work carried out in this assessment will form the basis for the final project in AINV13006 - Crash Lab

Project 2. The standard of work undertaken in this assessment will directly affect the quality of your work in AINV13006.

During the Crash Lab Project residential school, students will work in investigation teams to investigate a series of accidents. Each student will lead one team and work as a team member on a number of teams led by other students. You will be accountable for the integrity of the investigation in which you are the leader. This includes responsibility for:

- Managing your investigation team
- Safety at the accident scene
- Preservation of the the accident scene
- Gathering and continuity of evidence
- Identifying and interviewing witnesses
- Obtaining witness statements
- Identifying and collecting documentary and other evidence
- Creating and maintaining appropriate logs
- Initial analysis of the accident
- Initial preparation of the applicable logic diagrams
- Identifying and collecting information to be able to discuss the following areas within the final report:
    - Human Factors (Physical, cognitive and organisational)
    - Work organisation (eg. SMS, rosters, SOP, risk assessments, training)
    - Victim pathology
    - Crashworthiness
    - Organisational issues
    - Engineering issues, (eg design and/or failures)
    - Regulatory analysis

Your practical application of the relevant theory will be assessed during the residential school against each of these subject areas. You and your team will collect evidence throughout the residential school. We will verify your understanding of your collected evidence Portfolio at the end of the residential school.

In addition, you will be required to prepare and deliver a presentation, supported by Powerpoint that describes your investigation, your preliminary analysis, including your preliminary logic diagrams.
There will be four parts to this this assessment:

Part A : Preparedness (10%)

- Crash Kit Assessment
- Risk Assessment

Part B : Advanced Scene Management and Evidence Collection (30%)

- Accident Scenario - Team Leader Assessment
- Collected evidence Portfolio

Part C : Initial Analysis (10%)

- Verbal Presentation supported by visual materials

Part D : Professionalism (Pass/Fail)

- Throughout the residential school, students will be assessed on their ability to apply professional approaches to all activities.

The majority of the assessment will be completed during the residential school. Your completed Powerpoint presentation should also be uploaded into the applicable assessment area in Moodle by 0900 hours on the Monday following the residential school.

NOTE: In order for all students to satisfactorily complete this assessment, it will be necessary for students in the investigation teams to share their collected evidence, artefacts, photos, maps, documents, records and logs etc with their team leader/s in a timely fashion. To facilitate this, students should each bring an appropriate USB stick to the residential school to facilitate the transfer of files.

Failure to share with your team leader your evidence, artefacts, photos, maps, documents, records and logs etc collected during the investigation activities at the residential school in a timely fashion, will result in your failure of this assessment task.

Assessment Due Date

Risk assessment due via Moodle 1 week prior to residential school. Presentation slides are due via Moodle on 13 May 9am AEST. Assessment of the remainder of this assessment task will take place during the residential school.

Return Date to Students

Within 3 weeks of submission date

Weighting
50%

Minimum mark or grade
Students must be graded Pass in all core skills: scene management, photography, mapping, witness interviewing and professionalism; during the residential school, to pass this assessment. Students must pass this assessment to pass this unit

Assessment Criteria
The detailed assessment criteria for each part will be provided and explained during the term.

PART A: - **Pre-planning** (10%)
Students are required to attend the first morning of the residential school with a copy of the completed effective risk assessment (submitted 1 week earlier) and a complete crash kit as detailed during the lectures. Failure to have these two items will result in the student being excluded from the practical activities of the residential school until the shortcomings are corrected.

PART B: - Scene Management & Evidence Collection (30%)
Accident Scenario - Team Leader Assessment
Collected evidence:

- Has collected, engaged with and can verbally explain the photos, sketch map and log sheets done by their team.
- Has witness statements to appropriate standard and has interviewed a number of witnesses.
- Has sufficient materials and understanding to be able to prepare a report.
- Recognises weaknesses in collected materials and has a plan to address them

PART C: – Preliminary Analysis (10%)
Presentation – Presentation style, formatting, content & preliminary event tree logic diagram

PART D:– Professionalism (Pass/Fail) Throughout the residential school, students are expected to apply professional approaches to all activities.

Detailed marking matrices are provided in Moodle for these assessments.

Referencing Style

- Harvard (author-date)

Submission
Offline Online

Submission Instructions
Risk Assessment submitted 1 week prior to residential school commencing (29 April 9am AEST). Presentation slides shall be submitted via Moodle by Monday 13 May 2019 (9.00am). These shall be in Word, Excel, Powerpoint or .pdf format.

Learning Outcomes Assessed

- Plan and conduct a detailed accident investigation.
- Analyse the accident causation sequences and linkages by applying an event tree or equivalent method.
- Employ effective communication strategies appropriate to a major accident investigation.
- Demonstrate reflective skills appropriate to the development of the graduating practitioner.

Graduate Attributes

- Communication
- Problem Solving

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

3 Preliminary report & Reflection

Assessment Type
Written Assessment

Task Description
The work carried out in this assessment will form the basis for the final project in AINV13006 - Crash Lab Project 2. The standard of work undertaken in this assessment will directly affect the quality of your work in AINV13006.

PART A (40%) - Preliminary report
During the Crash Lab Project residential school each student will lead an investigation team.
For this assessment task you must:

- Obtain copies of all the relevant physical and documentary evidence, photographs, logs, interview statements etc collected by the members of your investigation team as part of the investigation in which you were team leader
- Develop your analysis of the accident and event tree which were commenced during the residential school
- Participate in tutorials to ensure that you and your peers have a greater understanding of the relevant investigation and lines of enquiry.
- Prepare a preliminary analysis, including a narrative of causation which aligns with the causation logic of your event tree.
- Present material in a preliminary report format

Assessment
The grade for this Assessment task accounts for 40% of the total assessment for this course.
Note: This exercise and preliminary report forms basis for your final report in AINV13006 - Crash Lab Project 2.
Your submission for the preliminary report will include the following materials collected **to date**:

- Executive Summary pertaining the accident you were managing
- Table of contents
- Background of accident you were managing
- Timeline
- PEEPO
- Event Tree
- Causation Narrative
- Discussion of lines of enquiry (including those eliminated)
- Evidence Logs
- Continuity Logs
- Photographic Logs and Photos
- Maps (Sketch and scale)
- Witness statements and/or records of interview (at least 5)
- List of documentary evidence you have collected
- An outline of the evidence you are going to seek to assist with your investigation (Investigation plan)

Please note: For members of your investigation teams to successfully finalise their portfolio items you will need to share the artefacts that you collected or created during the investigation of the accident scenes. This is a component of professionalism and failure to provide this information to your investigation team members in a timely manner, will result in an automatic fail of this assignment.

PART B (10%) - Reflection
You will be required to reflect on your preparedness for professional practice. For Part B of this assessment task, you are required to:

- Reflect on your learning in the Bachelor of Accident Forensics course to date.
- Complete a self assessment of your Part A report (using criteria provided by your lecturer).
- Identify your strengths and weaknesses in relation to each of the crash lab activities (eg evidence collection, logic diagrams etc).

- Explain how you will address any shortcomings prior to your industry placement.

You are free to present this Part B of the assessment in the format of your choice.

Assessment Due Date
Week 12 Monday (3 June 2019) 9:00 am AEST

Return Date to Students

Weighting
50%

Minimum mark or grade
To pass this assessment, students must be graded Pass in all core skills: causation narrative and logic diagrams. Students must pass this assessment to pass this unit.

Assessment Criteria
The detailed assessment criteria for each part will be provided and explained during the term.
PART A - Accident Analysis (40%)

Your report will be assessed on the:

- Description of the accident
- Quality of the logic diagrams (PEEPO, Timeline and Event Tree)
- Depth of analysis
- Identification of latent failures
- Consideration of similar accidents
- Causation narrative alignment to logic diagrams
- Written expression
- Sources and referencing

PART B - Self-reflection (10%)

Your self-reflection will be assessed on your:

- Critical Reflection of own learning and performance
- Reflection on your preparation and capacity for leadership of investigation teams
- Reflection on your professional practice confidence and competence during the residential school activities
- Self assessment of the quality of your own work
- Plan to extend strengths and address shortcomings
- Written expression

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
All files are to be in .pdf format. Students should ensure that all diagrams, when enlarged are legible.

Learning Outcomes Assessed

- Plan and conduct a detailed accident investigation.
- Analyse the accident causation sequences and linkages by applying an event tree or equivalent method.
- Employ effective communication strategies appropriate to a major accident investigation.
- Demonstrate reflective skills appropriate to the development of the graduating practitioner.

Graduate Attributes

- 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