



PMSC13008 *Evaluating Emergency Services Risks*

Term 1 - 2017

Profile information current as at 28/04/2024 05:43 pm

All details in this unit profile for PMSC13008 have been officially approved by CQU University 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 prepare emergency services personnel to determine and quantify occupational risks, compare those risks between industries, agencies and occupations and to develop interventions to mitigate those occupational risks.

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

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 1 - 2017

- Distance

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: 10%

2. **Written Assessment**

Weighting: 30%

3. **Written Assessment**

Weighting: 60%

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](#).

Unit Learning Outcomes

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

1. Analyse occupational injury and fatality rates
2. Construct a minimum data set needed to calculate injury and fatality rates
3. Appraise injury and fatality rates for a given population of emergency services personnel

No external accreditation applicable

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes		
	1	2	3
1 - Written Assessment - 10%	•		
2 - Written Assessment - 30%		•	
3 - Written Assessment - 60%			•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes		
	1	2	3
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 - 10%	•									
2 - Written Assessment - 30%	•	•	•							

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
3 - Written Assessment - 60%	•	•	•	•						

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

Brian Maguire Unit Coordinator

b.maguire@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Introduction	Maguire BJ. EMS Research. In Walz BJ. (Ed.) <i>Introduction to EMS Systems</i> . Delmar Learn. Aug 2001.	Introduce yourself on the class Moodle site.
Choosing a topic	O'Meara P, Maguire BJ, Jennings P, Simpson P. Building an Australasian paramedicine research agenda: a narrative review. <i>Health Research Policy and Systems</i> . 2015; 13: 79. [1.81] Full text available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4678527/ The Writing Guide Suggested reading: http://www.cqu.edu.au/student-life/services-and-facilities/referencing CQU. The Great Guide to University Study. 2013. Available at: https://my.cqu.edu.au/documents/10165/2178077/Great+Guide+to+University+Study/b8b60a74-ee39-4d31-b74e-e198d6b98c43 Maguire BJ, O'Meara P, Newton A. Toward an international paramedic research agenda. <i>Irish Journal of Paramedicine</i> . 2016; 1(2). Full text available at: http://www.lenus.ie/hse/bitstream/10147/620961/1/Maguire+Research.pdf	

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Overview of Risks

Maguire BJ, O'Meara P, Brightwell R, O'Neill BJ, FitzGerald G. Occupational Injuries and Fatalities among Paramedics in Australia. *Medical Journal of Australia*. 2014; 200(8): 477-80.

Reichard AA, Jackson LL. Occupational injuries among emergency responders. *American Journal of Industrial Medicine*. 2010;53(1):1-11

Maguire BJ, Smith S. Injuries and fatalities among emergency medical technicians and paramedics in the United States. *Prehosp Disaster Med*. 2013;28(4): 1-7.

Ferguson P, Prenzler T, Sarre R, De Caires B. Police and security officer experiences of occupational violence and injury in Australia. *International Journal of Police Science & Management*. 2011;13(3):223-33

Suggested discussion: In your experience, what are the main factors that contribute to injuries among emergency services personnel?

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Statistics	<p>Calculating injury and fatality rates handout U.S. Bureau of Labor Statistics. How to Compute Your Firm's Incidence Rate http://www.bls.gov/iif/oshwc/osh/os/osh06_appc.pdf Standardized Coding http://www.bls.gov/iif/oshwc/osh/os/osh06_appd.pdf Safe Work Australia http://www.safeworkaustralia.gov.au/sites/swa/statistics/tiffr/pages/lost-time-injury-frequency-rates Reference Occupational Injury and Illness Classification Manual http://www.bls.gov/iif/osh/oic.htm</p>	<p>Activity. Review the discussion posts from weeks 1 and 2 and consider who you would like to work with for Assessment 2. Reach out to those individuals and create your team. Once your team is finalized, notify Prof. Maguire. Individuals who have not created teams by the end of week 3 will be assigned to teams by Prof. Maguire.</p>

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Fatal injuries	<p>Maguire BJ, Hunting KL, Smith GS, Levick NR. Occupational Fatalities in EMS: A Hidden Crisis. <i>Annals of Emergency Medicine</i>. 2002; 40(6): 625-632.</p> <p>Clarke C, Zak MJ. Fatalities to law enforcement officers and firefighters, 1992-97. <i>Compensation and Working Conditions</i>. 1999;15:3-7</p> <p>Optional: Alexandria City Fire Department. Line of Duty Death. Investigative Report. Medic II Joshua A. Weissman. 20 Nov 14. Available at: http://www.alexandriava.gov/uploadedFiles/fire/info/Weissman%20LODD%20Report%20Final%20of%20Final%2012.22.2014.pdf Accessed 23 Jan 15.</p>	<p>Assessment 1 due</p> <p>Written Assessment Due: Week 4 Thursday (30 Mar 2017) 4:00 pm AEST</p>

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Non-fatal Injuries	<p>Maguire BJ, Hunting KL, Guidotti TL, Smith GS. Occupational Injuries Among Emergency Medical Services Personnel. <i>Prehospital Emergency Care</i>. 2005; 9: 405-411.</p> <p>Suyama J, Rittenberger JC, Patterson PD, Hostler D. Comparison of public safety provider injury rates. <i>Prehospital Emergency Care</i>. 2009;13(4):451-55</p> <p>Karter MJ Jr., Molis JL. U.S. Firefighter Injuries - 2013. NFPA; 2014. Available at: http://www.nfpa.org/~media/Files/Research/NFPA%20reports/Fire%20service%20statistics/osffinjuries.pdf. Accessed 23 Jan 15.</p>	<p>Suggested activity 1</p>

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Transportation-related risks

Maguire BJ. Transportation-Related Injuries and Fatalities among Emergency Medical Technicians and Paramedics. *Prehospital and Disaster Medicine*. 2011; 26(5): 346-352.

Maguire BJ. Ambulance Safety. In Cone DC. (Ed) *Emergency Medical Services: Clinical Practice & Systems Oversight*. NAEMSP. Wiley Pub. 2015.

Fahy RF. U.S. Firefighter Fatalities in Road Vehicle Crashes - 1998-2007. NFPA. Available at: <http://www.nfpa.org/~media/files/research/nfpa%20reports/fire%20service%20statistics/osffvehicledeaths.pdf>. Accessed 21 Jan 15.

Maguire BJ. Characterizing Ambulance Driver Training in EMS Systems. In response to: U.S. DOT Docket ID Number NHTSA-2014-0127. Submitted 29 January 2015. Available at <http://www.regulations.gov/#/documentDetail;D=NHTSA-2014-0127-0002>. Access. 17 Feb 15.

Suggested discussion topic:
What are some of the main factors that influence the risks of transportation related injuries for emergency services personnel?

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
	Maguire BJ. Ambulance Safety in the U.S. <i>J of Emergency Management</i> . 2003; 1(1): 15-18.	
	Maguire BJ, Porco FV. EMS and vehicle safety. <i>Emergency Medical Services</i> . 1997; 26(11):39-43.	Assessment 2 due
Transportation-related risks II	Suggested reading: Best Practices for Emergency Vehicle and Roadway Operations Safety in the Emergency Services. IAFF. Available at: http://www.iaff.org/hs/EVSP/Best%20Practices.pdf . Accessed 21 Jan 15	Written Assessment Due: Week 7 Friday (28 Apr 2017) 3:00 pm AEST

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
International & disaster-related risks	Mitchell CS, Maguire BJ, Guidotti TL. Worker Health and Safety in Disaster Response. In Clotstone G. (Ed.) <i>Disaster Medicine</i> . Mosby Pub. 2014.	Discussion: How should emergency services personnel prepare to respond to another country for an international disaster?
	Maguire BJ, Dean S, Bissell RA, Walz BJ, Bumbak D. Epidemic and Bioterrorism preparation among EMS systems. <i>Prehosp and Disaster Medicine</i> . 2007; 22(3): 237-242.	

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Diseases	Makiela S, Taylor-Robinson AW, Weber A, Maguire BJ. A Preliminary Assessment of Contamination of Emergency Service Helicopters with MRSA and Multi-Resistant Staphylococcus aureus. <i>Emergency Medicine: Open Access</i> . 2016; 6: 304. [0.25] doi:10.4172/2165-7548.1000304. Full text available at: http://www.omicsgroup.com/journals/a-preliminary-assessment-of-contamination-of-emergency-service-helicopters-with-mrsa-and-multiresistant-staphylococcus-aureus-2165-7548-1000304.pdf Al Amiry A, Bissell RA, Maguire BJ, Alves DW. Methicillin-resistant Staphylococcus aureus nasal colonization prevalence among Emergency Medical Services personnel. <i>Prehosp Disaster Med</i> . 2013;28(4):1-5.	Discussion. Communicable diseases present threats to responders, partners, family members and to the people who call us for help. How can we identify and minimize the risks of communi-cable disease transmission?
	Daniels RD, Bert S, Dahm MM. et al. Exposure-response relationships for select cancer and non-cancer health outcomes in a cohort of US firefighters from San Francisco, Chicago and Philadelphia (1950-2009). <i>Occup Environ Med</i> doi:10.1136/oemed-2014-102671	

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Violence	OSHA. Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers. Available at: https://www.osha.gov/Publications/OSHA3148/osh3148.html . Accessed 19 Jan 15 Maguire BJ, O'Meara P and O'Neill BJ. Violence Against Paramedics: Developing the Tools to End the Epidemic. <i>Response</i> . 2016; 43(1): 24. Taylor, Jennifer A., et al. "Expecting the unexpected: a mixed methods study of violence to EMS responders in an urban fire department." <i>American journal of industrial medicine</i> (2015). Video: https://au.tv.yahoo.com/sunrise/video/watch/34390330/paramedics-have-the-most-dangerous-job-in-the-country/6 Optional: (Note that the presentation begins at about minute 6) https://video.cqu.edu.au/ess/portal/section/936c159b-2473-41a0-a5c9-ec860e6db09d	Suggested discussion: Who are the typical perpetrators of violence against emergency services personnel?

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Safety & risk reduction	Maguire BJ. EMS occupational safety issues, implications, and remedy. In: Keebler J LE, Misasi P. ed. <i>The Ergonomics and Human Factors of Prehospital Emergency Care</i> . CRC Press, 2017. Maguire BJ. Australian Safety and Quality Goals. Letter to the Australian Commission on Safety and Quality in Health Care. 2012. Available at: http://www.safetyandquality.gov.au/wp-content/uploads/2012/01/National-Goals-consultation-Submission-19-Brian-Maguire-Charles-Sturt-University-20-Jan-2012.pdf Ten Ss of Injury Prevention Nabeel I, Baker BA, McGrail MP Jr, Flottemesch TJ. Correlation between physical activity, fitness, and musculoskeletal injuries in police officers. <i>Minn Med</i> . 2007 Sep;90(9):40-3.	Discussion. What might you add to the Ten Ss of injury prevention? Why?

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Preventing crashes

Maguire BJ. Preventing Ambulance Collision Injuries Among EMS Providers: Part 2. *EMS Manager and Supervisor*. 2003; 5(3): 4-7.

Maguire BJ. Preventing Ambulance Collision Injuries Among EMS Providers: Part 1. *EMS Manager and Supervisor*. 2003; 5(2): 4.

Discussion. Haddon's Matrix is a tool to help us consider potential casual and preventive strategies related to injuries. Can you either add items to the Haddon's Matrix in the reading or create a new Matrix for another occupational risk?

Review/Exam Week - 05 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
Review		Written Assessment Due: Review/Exam Week Thursday (8 June 2017) 3:00 pm AEST

Exam Week - 12 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
		<i>Assessment 3 due</i>

Assessment Tasks

1 Written Assessment

Assessment Type

Written Assessment

Task Description

Task Description: Describe your emergency services agency (maximum 100 words) and describe: why it is important to understand its risks and how you think the risks at that agency compare to a published report (max 500 words). The total word count maximum is 600 words. Cite the published report you are referencing. Post to the Moodle forum. Note: Assessment I should focus on your emergency services agency. If you are not currently working at an emergency services agency, contact Prof. Maguire.

Assessment Due Date

Week 4 Thursday (30 Mar 2017) 4:00 pm AEST

Return Date to Students

Week 6 Friday (21 Apr 2017)

Weighting

10%

Assessment Criteria

- * The emergency services agency is described
- * Occupational injury and fatality rates stated
- * A comparison of risks to the published report provided
- * Appropriate referencing used
- * Correct spelling and grammar

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Analyse occupational injury and fatality rates

Graduate Attributes

- Communication

2 Written Assessment

Assessment Type

Written Assessment

Task Description

Title: Minimum data set

Preamble: During the first three weeks of Term you may choose one or two other students to work with on this project. Let Prof. Maguire know the members of the team. If you are not able to find a partner(s) Prof. Maguire will assign teams. Teams are encouraged to use a program such as Google docs to share drafts of the working documents.

Task Description: Working together in teams of two or three, construct a dataset needed to determine injury and fatality rates for a given group of emergency services personnel. Create an Excel spreadsheet with the criteria and submit a description of the set (maximum 500 words per group member). Cite your sources for choosing the criteria.

Note: be sure that the names and email addresses of each team member are on both the Excel spreadsheet and on the description document.

Assessment Due Date

Week 7 Friday (28 Apr 2017) 3:00 pm AEST

Return Date to Students

Week 9 Friday (12 May 2017)

Weighting

30%

Assessment Criteria

* Excel spreadsheet dataset is sufficient to determine injury and fatality rates for a given group of emergency services personnel

* The description of the set includes:

- The emergency services agency is described
- Appropriate referencing used
- Correct spelling and grammar

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Construct a minimum data set needed to calculate injury and fatality rates

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking

3 Written Assessment

Assessment Type

Written Assessment

Task Description

Title: Population Risks

Task Description: For the population of emergency services personnel at your agency (or the one selected by your group), describe their risks in comparison to populations of other emergency services personnel and/or to the average for all workers. Note any risks that may be unique. Describe ways that the risks for this population might be reduced. (Maximum 1,200 words). Cite your sources. Note: this assignment can be done individually or in groups of two or three students. If working in a group, the maximum word count for the project is 1,000 words per student.

Note: if working in a group, the names and email addresses of each group member must be included on the paper.

Assessment Due Date

Review/Exam Week Thursday (8 June 2017) 3:00 pm AEST

Return Date to Students

Exam Week Friday (16 June 2017)

Weighting

60%

Assessment Criteria

- * The emergency services agency is described
- * Occupational injury rates stated
- * A comparison of risks to the published report provided
- * Includes suggestions for prevention
- * Appropriate referencing used
- * Correct spelling and grammar

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Appraise injury and fatality rates for a given population of emergency services personnel

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy

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