SAFE20018 *Fatigue Risk Management*
Term 2 - 2023

All details in this unit profile for SAFE20018 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
Organisations have a responsibility to manage fatigue-related risk in their operations. This unit builds on your understanding of risk management and workplace health and safety concepts and allows you to apply them to the hazard of fatigue. You will identify and evaluate the causes and consequences of fatigue, and apply the scientific evidence in developing guidance for the management of the individual, organisational and community risks. You will also explore and evaluate current regulatory and legal frameworks relating to the management of fatigue related risk.

Details
Career Level: *Postgraduate*
Unit Level: *Level 8*
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 2 - 2023

- 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 Postgraduate 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. **Online discussion forum**
Weighting: 30%
2. **Annotated bibliography**
Weighting: 40%
3. **Report**
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 evaluation

Feedback

Clear unit requirements

Recommendation

Revise unit profile in concert with moodle page to clearly map learning path, structure of the term, and alignment with assessments.

Unit Learning Outcomes

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

1. Explain the physiological and psychological effects of fatigue
2. Compare and contrast how work and non-work factors mediate fatigue
3. Assess fatigue related risks associated with different working time arrangements and tasks
4. Critically evaluate a Fatigue Risk Management System (FRMS) identifying gaps and recommending enhancements reflecting scientific and regulatory best-practice.

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 - Online discussion forum - 30%	●	●	●	●
2 - Annotated bibliography - 40%	●	●		
3 - Report - 30%			●	●

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Knowledge	◦	◦	◦	◦
2 - Communication	◦	◦		
3 - Cognitive, technical and creative skills		◦	◦	
4 - Research	◦	◦		◦
5 - Self-management	◦	◦		
6 - Ethical and Professional Responsibility			◦	◦
7 - Leadership			◦	
8 - Aboriginal and Torres Strait Islander Cultures				

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

Sally Ferguson Unit Coordinator
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Schedule

Week 1 - 10 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Welcome and intro to the unit	Noy et al (2011). Future directions in fatigue and safety research. Accident Analysis and Prevention 43 (2011): 495-497.	

Week 2 - 17 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Working hours and approaches to fatigue risk management	Williamson et al. The link between fatigue and safety. Accident Analysis and Prevention 43 (2011): 498-515.	

Week 3 - 24 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Quantifying fatigue-related risks	Ferguson and Dawson (2012). 12-hour or 8-hour shifts? It depends. Sleep Medicine Reviews.16(6): 519-28. Garde et al (2020). How to schedule night shift work in order to reduce health and safety risks. Scand J Work Environ Health, 46(6): 557-569.	

Week 4 - 31 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic

Module/Topic	Chapter	Events and Submissions/Topic
Examining the effects of fatigue	Di Milia et al (2011). Demographic factors, fatigue, and driving accidents: An examination of the published literature. Accident Analysis and Prevention 43 (2011): 516-532.	

Week 5 - 07 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Legal and political contexts of fatigue management	Gartner et al (2019). Working Time Society consensus statements: Regulatory approaches to reduce risks associated with shift work—a global comparison, Industrial Health, 57 (2): 245-263.	

Vacation Week - 14 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 21 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Elements of a fatigue risk management system	Wong et al (2019). Working Time Society consensus statements: A multi-level approach to managing occupational sleep-related fatigue, Industrial Health, 57(2): 228-244	**Annotated bibliography** Due: Week 6 Monday (21 Aug 2023) 5:00 pm AEST

Week 7 - 28 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
The Defences in Depth framework	Lerman et al (2012). Fatigue Risk Management in the Workplace. Journal of Occupational and Environmental Medicine, 54(2), 231–258.	

Week 8 - 04 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
Predictive controls - Level 1	Dawson et al (2011). Modelling fatigue and the use of fatigue models in work settings, Accident Analysis & Prevention, 43(2): 549-564	

Week 9 - 11 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic

Proactive controls - Level 2

Week 10 - 18 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Proactive controls - Level 3		

Week 11 - 25 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Reactive controls - Level 4	Dawson et al (2018). Determining the likelihood that fatigue was present in a road accident: A theoretical review and suggested accident taxonomy, Sleep Medicine Reviews, 42: 202-210	**FRMS review and gap analysis** Due: Week 11 Friday (29 Sept 2023) 5:00 pm AEST

Week 12 - 02 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Reactive controls - Level 5		**Online discussion forum** Due: Week 12 Friday (6 Oct 2023) 9:00 am AEST

Review/Exam Week - 09 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Exam Week - 16 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Assessment Tasks

1 Online discussion forum

Assessment Type
Online discussion forum

Task Description
The online discussion forum assessment requires you to write SIX posts. TWO original posts (one on each of the discussion topics) and FOUR response posts (responding to two of your peers' posts in each of the forums).
You can write your original posts at any time. You will not be able to see posts from other students on a given topic until 15 minutes after posting your own. You have until Week 12 to complete all SIX posts. Each original and response post should be 400-600 words not including bibliography.

Discussion topic 1 - Some organisations view fatigue as something that should be managed by the individual. Drawing from the literature and your professional or personal experience where appropriate, discuss the importance of the concept of shared responsibility for fatigue risk management.

Discussion topic 2 - The focus of fatigue risk management has traditionally been on

reducing errors and incidents in the workplace but research shows that shift work impacts health outcomes as well. Drawing from the literature and your professional or personal experience where appropriate, discuss why you think long term health impacts have not been a focus, and what can organisations do to address this issue?

Assessment Due Date
Week 12 Friday (6 Oct 2023) 9:00 am AEST
Online via moodle

Return Date to Students
Exam Week Wednesday (18 Oct 2023)

Weighting
30%

Assessment Criteria
You will be assessed on knowledge of, and engagement with the topic, the quality of scientific evidence provided in support of your argument, clear and concise communication.

A rubric will be available on the moodle site.

Referencing Style

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

Submission
Online

Submission Instructions
Paste text into appropriate discussion forum within the ASSESSMENT TAB.

Learning Outcomes Assessed

- Explain the physiological and psychological effects of fatigue
- Compare and contrast how work and non-work factors mediate fatigue
- Assess fatigue related risks associated with different working time arrangements and tasks
- Critically evaluate a Fatigue Risk Management System (FRMS) identifying gaps and recommending enhancements reflecting scientific and regulatory best-practice.

2 Annotated bibliography

Assessment Type
Annotated bibliography

Task Description
Fatigue has a wide range of impacts on physiological and psychological performance that in turn can impact workplace safety and long-term health and well-being. Choose a specific work task (such as driving a train, or operating a lathe) and identify five work or non-work related factors that can contribute to fatigue. For each factor, find a relevant scientific journal article, and describe what the article means in terms of the impacts of fatigue on the chosen work task, and/or potential strategies to reduce fatigue-related risk for that work task. Write a short summary that draws the evidence from each of the citations together.

Your annotated bibliography should be approximately 2000 words.

Assessment Due Date
Week 6 Monday (21 Aug 2023) 5:00 pm AEST
Online via moodle

Return Date to Students
Week 8 Monday (4 Sept 2023)

Weighting
40%

Assessment Criteria
You will be assessed on your knowledge of the topic including identification of factors that contribute to fatigue, quality of scientific evidence sourced in support of argument, ability to critically analyse literature and apply to real-world contexts, and clear communication.

The rubric will be available on moodle.

Referencing Style

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

Submission
Online

Learning Outcomes Assessed

- Explain the physiological and psychological effects of fatigue
- Compare and contrast how work and non-work factors mediate fatigue

3 FRMS review and gap analysis

Assessment Type
Report

Task Description
A Fatigue Risk Management System (FRMS) enables an organisation to identify the risks that fatigue presents to its workers' health and safety, and put in place strategies to mitigate those risks. In this assignment you will be provided with an FRMS manual to review. You will be required to: 1) evaluate the FRMS in terms of its processes for hazard identification and risk mitigation; 2) identify gaps in the FRMS; and 3) suggest improvements to the FRMS based on the understanding of scientific and regulatory best-practice you have developed in this course.

Your report should be approximately 2000 words (not including your bibliography).

Assessment Due Date
Week 11 Friday (29 Sept 2023) 5:00 pm AEST
Online via moodle

Return Date to Students
Review/Exam Week Friday (13 Oct 2023)

Weighting
30%

Assessment Criteria
You will be assessed based on knowledge of topic and application of key principles, detailed analysis of gaps and quality of communication.

The rubric will be available on moodle.

Referencing Style

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

Submission
Online

Learning Outcomes Assessed

- Assess fatigue related risks associated with different working time arrangements and tasks
- Critically evaluate a Fatigue Risk Management System (FRMS) identifying gaps and recommending enhancements reflecting scientific and regulatory best-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