SAFE20018 *Fatigue Risk Management*
Term 2 - 2022

Profile information current as at 14/12/2025 04:57 am

General Information

Overview
Fatigue Risk Management examines the physiological and psychological aspects of fatigue with the goal of providing guidance for the management of the individual, organisational and community risks. Topics include the biological and psychological impacts of non-standard work hours and the contribution of work and non-work related factors to fatigue related risk. The current regulatory environment surrounding the management of fatigue related risk will also be explored.

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 - 2022

- 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. **Group Discussion**
Weighting: 20%
2. **Written Assessment**
Weighting: 40%
3. **Written Assessment**
Weighting: 40%

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
Ability to self pace access to the lectures was ideal.

Recommendation
Maintain the self paced format where possible in this unit.

Feedback from Have Your Say

Feedback
Moodle site was a little disorganised.

Recommendation
Review the Moodle site and make changes as required.

Unit Learning Outcomes

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

1. Explain the physiological and psychological consequences of fatigue
2. Interpret and discuss how social, domestic and working arrangements mediate fatigue related risks
3. Assess fatigue related risks associated with different working time arrangements and tasks
4. Design and evaluate appropriate fatigue risk management systems having regard for regulatory fatigue management restrictions

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 - 20%	•	•	•	•
2 - Written Assessment - 40%	•	•	•	
3 - Written Assessment - 40%		•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Knowledge	∘	∘	∘	∘

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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				

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Group Discussion - 20%	○	○	○	○	○	○	○	
2 - Written Assessment - 40%	○	○	○	○	○	○	○	
3 - Written Assessment - 40%	○	○	○	○	○	○	○	

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

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Schedule

Week 1 - 11 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Welcome and introduction	Noy YI, Horrey WJ, Popkin SM, Folkard S, Howarth HD, Courtney TK. Future directions in fatigue and safety research. Accident Analysis and Prevention 43 (2011): 495-497.	

Week 2 - 18 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Working hours and approaches to fatigue risk management	Williamson A, Lombardi DA, Folkard S, Stutts J, Courtney TK, Connor JL. The link between fatigue and safety. Accident Analysis and Prevention 43 (2011): 498-515.	

Week 3 - 25 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
	Ferguson SA and Dawson D (2012). 12-hour or 8-hour shifts? It depends. Sleep Medicine Reviews. Sleep Med Rev. 16(6): 519-28.	
Quantifying the risk associated with fatigue	Garde AH, Begtrup L, Bjorvatn B, Bonde JP, Hansen J, Hansen ÅM, Härmä M, Jensen MA, Kecklund G, Kolstad HA, Larsen AD, Lie JA, Moreno CR, Nabe-Nielsen K, Sallinen M. How to schedule night shift work in order to reduce health and safety risks. Scand J Work Environ Health. 2020 Nov 1;46(6):557-569.	**Group Discussion 1** posting due

Week 4 - 01 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Examining the effects of fatigue	Di Milia L, Smolensky MH, Costa G, Howarth HD, Ohayon MM, Philip P. Demographic factors, fatigue, and driving accidents: An examination of the published literature. Accident Analysis and Prevention 43 (2011): 516-532.	

Week 5 - 08 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic

Legal and political contexts and frameworks	Gartner J, Rosa RR, Roach GD, Kubo T, Takahashi M, Working Time Society consensus statements: Regulatory approaches to reduce risks associated with shift work—a global comparison, Industrial Health, 2019, Volume 57, Issue 2, Pages 245-263, Released on J-STAGE April 01, 2019, Advance online publication January 31, 2019	**Group Discussion 2** posting due

Vacation Week - 15 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 22 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Defenses in depth approach	Wong IS, Popkin S, Folkard S, Working Time Society consensus statements: A multi-level approach to managing occupational sleep-related fatigue, Industrial Health, 2019, Volume 57, Issue 2, Pages 228-244	

Week 7 - 29 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Elements of a fatigue risk management system	Lerman SE, Eskin E, Flower DJ, George EC, Gerson B, Hartenbaum N, Hursh SR, Moore-Ede M (2012). Fatigue Risk Management in the Workplace. *Journal of Occupational and Environmental Medicine*, *54*(2), 231–258.	**Group discussion** responses to peers due.

Week 8 - 05 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Level 1 fatigue risk controls	Dawson D, Noy YI, Härmä M, Åkerstedt T, Belenky G (2011). Modelling fatigue and the use of fatigue models in work settings, Accident Analysis & Prevention, Volume 43, Issue 2, Pages 549-564	**Develop a Fatigue Risk Management System** Due: Week 8 Tuesday (6 Sept 2022) 6:00 pm AEST

Week 9 - 12 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Level 2 fatigue risk controls	Refer previous readings	

Week 10 - 19 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Level 3 fatigue risk controls	Refer previous readings	

Week 11 - 26 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Level 4 fatigue risk controls	Dawson D, Reynolds AC, Van Dongen HPA, Thomas MJW. Determining the likelihood that fatigue was present in a road accident: A theoretical review and suggested accident taxonomy, Sleep Medicine Reviews, Volume 42: 202-210, 2018	

Week 12 - 03 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
Level 5 fatigue risk controls	As for week 12	**Review a Fatigue Risk Management System** Due: Week 12 Tuesday (4 Oct 2022) 6:00 pm AEST

Review/Exam Week - 10 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 17 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Group Discussion

Assessment Type
Group Discussion

Task Description
Assessment 1 has two components - (1) Your response to Discussion Topics #1 and #2, and (2) Your response to two of your colleagues' responses.
Develop and post your response to Discussion Topic #1 by week 3 and Discussion Topic #2 by week 5.
Post your responses to two other responses made by colleagues in the group by week 7.
Discussion Topic #1: There are various definitions of fatigue. The Noy et al paper contains a definition, your organisation may have its own, SafeWork Australia has a definition. Compare and contrast the differences between definitions from three sources. What are the implications of the definitional differences? How might you modify organisational policies to reflect current scientific thinking. Can arguments around the definition of fatigue become counterproductive and shift the focus away from actually dealing with the problem? Discuss.
Discussion Topic #2: Fatigue management policies contain wide variations in the factors contributing to fatigue. In some cases factors are listed with no scientific basis, or at least with minimal evidence (e.g. nutrition). From the fatigue management policies you have identified, rank the factors contributing to fatigue in order of importance. Having done this, are you sure this ranking applies to all jobs? Might different factors have different influences in different settings? Discuss.
Examples used in these discussions should be retrieved from published research and reputable sources such as the peer reviewed literature, Parliamentary Inquiries, agency or government websites such as SafeWork SA, ATSB, Queensland Health etc

Your original posts and your responses to others in the group should be around 800 words (excluding references). Start a new topic in the General Discussion section on moodle for both of your original posts.

Assessment Due Date

Develop and post your response to Discussion Topic #1 by week 3 and Discussion Topic #2 by week 5. Post your responses to two other responses made by colleagues in the group by week 7.

Return Date to Students

Weighting
20%

Minimum mark or grade
50% minimum grade required to pass this unit

Assessment Criteria
The Group Discussion assessment requires four posts (two original and two responses to others) and each are worth 5% for a total of 20% for the assessment.
You will be assessed on the evidence you provide for your arguments and the clarity and conciseness of your posts.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Discussion board posts.

Learning Outcomes Assessed

- Explain the physiological and psychological consequences of fatigue
- Interpret and discuss how social, domestic and working arrangements mediate fatigue related risks
- Assess fatigue related risks associated with different working time arrangements and tasks
- Design and evaluate appropriate fatigue risk management systems having regard for regulatory fatigue management restrictions

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Self-management
- Ethical and Professional Responsibility
- Leadership

2 Develop a Fatigue Risk Management System

Assessment Type
Written Assessment

Task Description
Develop a Fatigue Risk Management System - Your task is to develop a Fatigue Risk Management System for an existing or fictional business. You will develop material related to elements of a Fatigue Risk Management System using the discussions and course materials up to and including Week 7/Module 6 to guide you. The FRMS document should outline the context in which the organisation operates such that managing fatigue-related risk is necessary, and describe how each element of the FRMS will function to provide protection for the business operations at the individual and organisational level.

Assessment Due Date
Week 8 Tuesday (6 Sept 2022) 6:00 pm AEST

Return Date to Students
Week 10 Friday (23 Sept 2022)

Weighting
40%

Minimum mark or grade
50% minimum grade required to pass this unit

Assessment Criteria
Your submission should be 5-10 pages in length and can include text, diagrams and tables, and references as appropriate. Please save/upload your file in a Word format (.doc or .docx).
You will be assessed on the following:
- Policy document and contextual information
- Training & Education plan
- An overview of the Risk Assessment & Mitigation plan (Defences in Depth)

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submission Instructions Submitted online through Moodle.

Learning Outcomes Assessed

- Explain the physiological and psychological consequences of fatigue
- Interpret and discuss how social, domestic and working arrangements mediate fatigue related risks
- Assess fatigue related risks associated with different working time arrangements and tasks

Graduate Attributes

- Knowledge
- Communication

- Cognitive, technical and creative skills
- Research
- Self-management
- Ethical and Professional Responsibility
- Leadership

3 Review a Fatigue Risk Management System

Assessment Type
Written Assessment

Task Description
In the final assessment you are required to review and provide supplementary material for an incomplete Fatigue Risk Management Systems (FRMS).
To do this you will need to select one of the uploaded FRMS assignments and assess the strategies and policies used to reduce fatigue risk, whether they are adequate and whether others/additional ones would be more appropriate.

Assessment Due Date
Week 12 Tuesday (4 Oct 2022) 6:00 pm AEST

Return Date to Students
Exam Week Friday (21 Oct 2022)

Feedback will be provided upon request

Weighting
40%

Minimum mark or grade
50% minimum grade required to pass this unit

Assessment Criteria
Prepare a 2000-3000 word report on the FRMS, outlining the strengths and weaknesses of the system as presented. Your report will also include a Risk Identification/Mitigation plan for Levels 1-5 and propose a Monitor and Review process for this FRMS.
Please save/upload your file in a Word format (.doc or .docx).

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submission Instructions Submitted online through Moodle.

Learning Outcomes Assessed

- Interpret and discuss how social, domestic and working arrangements mediate fatigue related risks
- Assess fatigue related risks associated with different working time arrangements and tasks
- Design and evaluate appropriate fatigue risk management systems having regard for regulatory fatigue management restrictions

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Self-management
- Ethical and Professional Responsibility
- Leadership

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