MGMT20130 *Operations Management and Business Analytics*

Term 2 - 2023

Profile information current as at 12/10/2024 07:23 pm

All details in this unit profile for MGMT20130 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 is an advanced unit. It builds on other units in the Master of Business Administration including ACCT20077 Accounting for Management Decision Making and ECON20040 Economics and Finance for Business. Operations management and business analytics explores the contemporary principles and practices involved in the management of both service and manufacturing operations. Taking a strategic approach to operations, you will examine fundamental concepts such as process planning, design, control and Six Sigma continuous improvement; quality management and lean thinking; the role of the supply chain in modern operations; capacity and location principles as well as the use of project-based activities in an operational environment. You will utilise data from a variety of organisational sources including financial, economic and market information and develop mathematical models as part of the analytical process leading to more effective operational decisions. The unit also provides you with the opportunity to engage in independent research using evidence-based approaches to identify workplace issues and recommend viable solutions that enhance organisational effectiveness.

Details

Career Level: *Postgraduate*
Unit Level: *Level 9*
Credit Points: *6*
Student Contribution Band: *10*
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

- Brisbane
- Melbourne
- Online
- 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 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. **Written Assessment**
Weighting: 40%
2. **Report**
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.

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 SUTE

Feedback

The unit provides a lot of examples and real-world applications.

Recommendation

Keep enriching teaching with real-world examples and interactive methods, fostering a deep understanding of the subject matter. Enhance positivity and inspiration in learning for a truly engaging and rewarding experience.

Feedback from SUTE

Feedback

Maintain the well-explained concepts and things related to Assessments.

Recommendation

Continue to provide comprehensive guidelines for each assessment. Dedicate time during each workshop for a Q&A session regarding the upcoming assessment.

Feedback from SUTE

Feedback

I would suggest incorporating Assessment 1 as a group assessment (instead of an individual) consisting of a written report and PowerPoint presentation.

Recommendation

Possibilities should be explored to determine if there is a benefit in converting Assessment 1 from an individual assessment to a group/team assessment.

Unit Learning Outcomes

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

1. Develop an advanced and integrated understanding of operations managements and business analytics
2. Critically analyse and reflect on key principles of operations analytics
3. Critically apply a complex systems approach to analytically identify, analyse and investigate the management of operational functions
4. Synthesise complex data from a variety of sources and develop mathematical models as part of the analytical process to identify and propose solutions to contentious workplace business problems
5. Interpret and successfully apply knowledge related to recent development of operations management in service and manufacturing industries.

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
1 - Written Assessment - 40%	•	•	•	•	•
2 - Report - 60%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Written Assessment - 40%	∘	∘	∘	∘	∘	∘		
2 - Report - 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)
- Excel 2016 with Add-in Solver

Referencing Style

All submissions for this unit must use the referencing style: American Psychological Association 7th Edition (APA 7th edition)
For further information, see the Assessment Tasks.

Teaching Contacts

Imran Ali Unit Coordinator
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Schedule

Week 1 - 10 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Operations Management	Lecture notes and materials are available in Moodle.	

Week 2 - 17 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Process Planning and Design	Lecture notes and materials are available in Moodle.	

Week 3 - 24 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Process Monitoring and Control	Lecture notes and materials are available in Moodle.	

Week 4 - 31 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Managing the Supply Chain and Inventory	Lecture notes and materials are available in Moodle.	

Week 5 - 07 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Forecasting, Capacity Planning and Facility Location	Lecture notes and materials are available in Moodle.	

Vacation Week - 14 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 21 Aug 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Introduction to Business Analytics	Lecture notes and materials are available in Moodle.	**Assessment # 1 Business Report** Due: Week 6 Monday (21 Aug 2023) 11:45 pm AEST
Week 7 - 28 Aug 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Optimisation Modelling	Lecture notes and materials are available in Moodle.	
Week 8 - 04 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Modelling and Sensitivity Analysis	Lecture notes and materials are available in Moodle.	
Week 9 - 11 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Network Models and Decision Analytics	Lecture notes and materials are available in Moodle.	
Week 10 - 18 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Quality Management	Lecture notes and materials are available in Moodle.	
Week 11 - 25 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Just-in-time and Lean Systems	Lecture notes and materials are available in Moodle.	
Week 12 - 02 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Project Management	Lecture notes and materials are available in Moodle.	**Assessment # 2 Business Report** Due: Week 12 Monday (2 Oct 2023) 11:45 pm 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 Assessment # 1 Business Report

Assessment Type
Written Assessment

Task Description
In today's volatile business environment, characterised by increasing uncertainties and disruptions, the significance of designing a resilient supply chain has become paramount. A resilient supply chain can effectively anticipate, adapt to, and recover from disruptions, ensuring operational continuity and customer satisfaction. This assessment aims to enable students to comprehend, apply, and analyze operations and supply chain management principles, theories, and models to design a resilient supply chain, using a real-world example organisation and its supply chain.

The assessment requires students to write a 2500-word (+/- 10%) business report that addresses assessment criteria related to specific topics and/or case materials. The report should be submitted through Turnitin and Moodle, accompanied by a cover sheet displaying the unit name and number, assessment number, student name, and student

number. Submissions must be in Business Report format using Word with 1.5 line spacing and Times Roman 12-point font. Further details and guidelines on assessment have been provided on the unit website.

Assessment Due Date
Week 6 Monday (21 Aug 2023) 11:45 pm AEST

A late penalty @ 5% per day applies

Return Date to Students
Week 8 Friday (8 Sept 2023)

The feedback and grade will be released in Moodle

Weighting
40%

Assessment Criteria
Your report's analysis, recommendations and presentation will be assessed according to the following criteria:

- Developed a succinct executive summary and introduction for the report: 10%
- Discussed the concept/framework of supply chain resilience: 20%
- Conducted a critical analysis of the current supply chain resilience of a real-world organisation from either the service or manufacturing industry: 20%
- Devised a more resilient supply chain strategy for the organisation: 25%
- Evaluated and articulated the viability and limitations of implementing a more resilient supply chain for the organisation: 10%
- Integrated 12 academic journal articles in accordance with APA reference format: 10%
- Ensured clarity of written expression, grammar, and spelling: 5%

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Submission Instructions
Submit the assessment in Moodle

assessmentOutcome

- Develop an advanced and integrated understanding of operations managements and business analytics
- Critically analyse and reflect on key principles of operations analytics
- Critically apply a complex systems approach to analytically identify, analyse and investigate the management of operational functions
- Synthesise complex data from a variety of sources and develop mathematical models as part of the analytical process to identify and propose solutions to contentious workplace business problems
- Interpret and successfully apply knowledge related to recent development of operations management in service and manufacturing industries.

assessmentGradAttribute

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

2 Assessment # 2 Business Report

Assessment Type
Report

Task Description
The assessment is designed for students to apply operations management principles and business analytics. It involves writing about factors influencing location decisions, identifying optimal facility locations, and scenario-based mathematical modelling of business problems to devise optimal solutions for operational efficiency and productivity. You need to submit a 2500-word (+/- 10%) Business Report and your quantitative outcomes based on the developed

Optimisation Models using Excel Spreadsheets through Turnitin, and Moodle, with a cover sheet showing unit name and number, assessment number, your name and student number. Submissions must be in Business Report format using Word with 1.5 line spacing and Times Roman 12-point font. Further details and guidelines on assessment have been provided on the unit website.

Assessment Due Date
Week 12 Monday (2 Oct 2023) 11:45 pm AEST

A late penalty @ 5% per day applies

Return Date to Students

The final results will be released after certification of grades

Weighting
60%

Assessment Criteria
Your report's analysis, recommendations and presentation will be assessed according to the following criteria:

- Developed a concise executive summary and introduction for the report: 10%
- Demonstrated a comprehensive understanding of the factors influencing facility location decisions: 20%
- Conducted thorough analysis and accurately identified the optimal facility location: 20%
- Developed and evaluated a mathematical model, proposing solutions to the problems/questions: 25%
- Interpreted the outcomes of the model's analytics: 10%
- Integrated a minimum of 12 academic journal articles, adhering to APA reference format: 10%
- Ensured clarity of written expression, grammar, and spelling: 5%

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Submission Instructions
Submit the assessment in Moodle

assessmentOutcome

- Develop an advanced and integrated understanding of operations managements and business analytics
- Critically analyse and reflect on key principles of operations analytics
- Critically apply a complex systems approach to analytically identify, analyse and investigate the management of operational functions
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assessmentGradAttribute

- 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