



ACCT28003 *Business Analytics Techniques*

Term 2 - 2022

Profile information current as at 19/04/2024 11:27 pm

All details in this unit profile for ACCT28003 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 unit introduces you to the world of data analytics in business. Business analytics uses software tools to produce strategic analyses of huge volumes of data stored in databases and data warehouses to support improved decision making. Business analytics is used in industry and government for basic reporting and descriptive analyses. Advanced predictive and prescriptive analytics also allow powerful insights to be generated. Some areas of application include improved understanding of customer behaviour, gauging sentiment on social media, analysis and prediction of factors influencing profitability and portfolio optimisation. This unit will provide you with foundation knowledge to contribute to the use of data analytics in business.

Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 10

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Students enrolling in this unit must be undertaking the CL84 Master of Business Administration (International).

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

- Jakarta

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 Quiz(zes)**

Weighting: 25%

2. **Project (applied)**

Weighting: 35%

3. **Project (applied)**

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 Self-reflection

Feedback

Practical application of Moodle materials

Recommendation

The unit contents, including Moodle material, need to have a more practical application to real-world examples and cases.

Unit Learning Outcomes

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

1. Identify the role of business analytics techniques in improving decision making for a data-driven organisation
2. Analyse how specific business analytics techniques influence critical success factors
3. Apply descriptive business analytics techniques to assist managers to solve business problems
4. Apply predictive and prescriptive business analytics techniques to assist managers to solve business problems.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Quiz(zes) - 25%	•	•		
2 - Project (applied) - 35%	•		•	•
3 - Project (applied) - 40%		•	•	•

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				

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - Online Quiz(zes) - 25%	○					○		
2 - Project (applied) - 35%	○	○	○		○			
3 - Project (applied) - 40%	○	○	○		○			

Textbooks and Resources

Textbooks

ACCT28003

Prescribed

Business Analytics

4th edition (2020)

Authors: Jeffrey D. Camm, James J. Cochran, Michael J. Fry, Jeffrey W. Ohlmann

Cengage Learning

Boston, MA, US

ISBN: 9780357131787

Binding: Paperback

Additional Textbook Information

This book is available to read online through the Library website. If you would like your own copy, you can purchase either paper or eBook copies at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code).

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Excel 2016 with Add-in Solver
- Excel 2016 (onwards) with Data Analysis Toolpak
- Excel spreadsheet software
- Zoom (both microphone and webcam capability)

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

Ronny Kountur Unit Coordinator

r.kountur@cqu.edu.au

Swee Kuik Unit Coordinator

s.kuik@cqu.edu.au

Schedule

Week 1 Introduction to Business Analytics - 11 Jul 2022

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

Week 2 Descriptive Statistics - 18 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Descriptive Statistics	Lecture notes and materials are available in Moodle.	

Week 3: Data Visualisation - 25 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Data Visualisation	Lecture notes and materials are available in Moodle.	Assessment 1 - Online Quiz (Task A). The link will open in Week 3 Monday at 9:00 AM (AEST).

Week 4: Probability and Modelling Uncertainty - 01 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Probability and Modelling Uncertainty	Lecture notes and materials are available in Moodle.	

Week 5: Regression Analysis - 08 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Regression Analysis	Lecture notes and materials are available in Moodle.	Assessment 1 Online Quiz: Task A Due: Week 5, Friday 11:45PM AEST

Vacation Week - 15 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6: Statistical Inference - 22 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Statistical Inference	Lecture notes and materials are available in Moodle.	Professional Report: Case Study and Data Analytics Due: Week 6 Friday (26 Aug 2022) 11:45 pm AEST

Week 7: Decision Analytics - 29 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Decision Analytics	Lecture notes and materials are available in Moodle.	

Week 8: Optimisation Concepts - 05 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Optimisation Concept Lecture notes and materials are available in Moodle.

Week 9: Spreadsheet Models - 12 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Spreadsheet Models	Lecture notes and materials are available in Moodle.	Assessment 1 - Online Quiz (Task B). The link will open in Week 9, Monday at 9:00 AM (AEST).

Week 10: Optimisation and Sensitivity Analysis - 19 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Optimisation and Sensitivity Analysis	Lecture notes and materials are available in Moodle.	

Week 11: Forecasting and Time Series - 26 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Forecasting and Time Series	Lecture notes and materials are available in Moodle.	Assessment 1 Online Quiz: Task B Due: Week 11, Friday 11:45 PM (AEST)

Week 12: Data Mining - 03 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
Data Mining	Lecture notes and materials are available in Moodle.	Professional Report: Analytical Modelling and Decision Making Due: Week 12 Monday (3 Oct 2022) 11:45 pm AEST

REVIEW WEEK - 10 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 17 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Online Quiz

Assessment Type

Online Quiz(zes)

Task Description

Assessment 1 comprises two main tasks:

Task A: Online Quiz (Weighted score: 10%) - The quiz includes 20 questions and has a time limit of 30 minutes. It is designed for students to understand key concepts and apply techniques and/or tools to analytically examine and/or propose solutions to business problems from the selected topics in this unit.

Task B: Online Quiz (Weighted score: 15%) - The quiz includes about 20-40 short and long questions and has a time limit of 60 minutes. It is designed for students to understand key concepts and apply techniques and/or tools to analytically examine and/or propose solutions to business problems from the selected topics in this unit.

Number of Quizzes

2

Frequency of Quizzes

Other

Assessment Due Date

The assessments will be due in Weeks 5 and 11. The exact due dates will be made available on the unit website.

Return Date to Students

Results will be made available on the unit website.

Weighting

25%

Assessment Criteria

No Assessment Criteria

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Identify the role of business analytics techniques in improving decision making for a data-driven organisation
- Analyse how specific business analytics techniques influence critical success factors

Graduate Attributes

- Knowledge
- Ethical and Professional Responsibility

2 Professional Report: Case Study and Data Analytics

Assessment Type

Project (applied)

Task Description

The assessment is designed for students to apply fundamental data analytics tools and/or techniques. The assessment involves writing a 2000-words business report responding to assessment questions related to specific cases and the numerical data files that store information specific to the cases will be provided on the unit website. Submit your business report including excel spreadsheet and/or any relevant calculations, with a cover sheet showing the unit name and number, assessment number, your name and student number. You can discuss your assessment ideas in the unit Discussion Forum (Case Study), before you complete and submit the assessment.

Assessment Due Date

Week 6 Friday (26 Aug 2022) 11:45 pm AEST

Return Date to Students

Week 8 Monday (5 Sept 2022)

Grades and feedback comments are released in Moodle. Feedback Studio and the Grade book are the designated platforms for reviewing outcomes from the assessment process

Weighting

35%

Assessment Criteria

Your report analysis, recommendations and presentation will be assessed according to the following criteria.

Demonstrated understanding of data analytics with techniques and/or tools that are related to the questions posed: 25%

Accurately suggest and develop the model for detailed analysis in relation to the case studies: 25%

Able to articulate and evaluate case studies to provide managerial insights and practical limitations based on quantitative outcomes: 20%

Provide appropriate and well-structured, concise and clear expression of decision making arguments: 10%

Provide a clear flow of thought throughout the business report, evidenced by succinct Executive Summary, Introduction, and Conclusion: 10%

Adherence to APA Reference format: 5%

Clarity of written expression, grammar, spelling: 5%

Report length 2000-words. However, the summary, table of contents, reference list and appendices are excluded from a report's word count.

Submissions must be in Professional Report format using Word with 1.5 line spacing and Times Roman 12-point font.

Late submissions will also be penalised at the rate of "five percent of the total marks available for the assessment each calendar day (full or part) it is overdue" (Policy: Assessment of Coursework section 3.2.4)

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Submission Instructions

Please submit via Moodle before the due date.

Learning Outcomes Assessed

- Identify the role of business analytics techniques in improving decision making for a data-driven organisation
- Apply descriptive business analytics techniques to assist managers to solve business problems
- Apply predictive and prescriptive business analytics techniques to assist managers to solve business problems.

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Self-management

3 Professional Report: Analytical Modelling and Decision Making

Assessment Type

Project (applied)

Task Description

The assessment is designed for students to apply analytical techniques and/or methods for solving a real world application in your chosen area. The assessment involves writing a 2500-word business report responding to assessment questions related to specific topics and/or decision making analysis. Submit your 2500-word professional report including excel spreadsheet and/or any relevant calculations through Turnitin, Moodle, with a cover sheet showing unit name and number, assessment number, your name and student number. Assessment details and guideline will be provided on the unit website. You can discuss your assessment ideas in the unit Discussion Forum (Applied Project), before you complete and submit the assessment.

Assessment Due Date

Week 12 Monday (3 Oct 2022) 11:45 pm AEST

Return Date to Students

Return Date to Students Results and feedback will be made available on the unit website after Grade Certification.

Weighting

40%

Assessment Criteria

Your report analysis, recommendations and presentation will be assessed according to the following criteria.

- Demonstrated understanding of analytical models that are related to the questions posed: 15%
- Critical evaluation and integration of relevant academic and literature to provide theoretical and practical aspects. Insights from a minimum of 10 academic journal articles must be incorporated in your critical analysis: 15%
- Accurately suggest and develop the model for detailed analysis in relation to the applications: 20%
- Able to articulate and evaluate scenario modelling to provide managerial insights and practical limitations based on quantitative outcomes: 15%
- Provide appropriate and well-structured, concise and clear expression of decision making arguments in terms of theoretical and practical elements 15%
- Provide a clear flow of thought throughout the business report, evidenced by succinct Executive Summary, Introduction, and Conclusion: 10%
- Adherence to APA Reference format: 5%
- Clarity of written expression, grammar, spelling: 5%

Report length 2500-words. However, the summary, table of contents, reference list and appendices are excluded from a report's word count.

Submissions must be in Business Report format using Word with 1.5 line spacing and Times Roman 12-point font.

Late submissions will also be penalised at the rate of "five percent of the total marks available for the assessment each calendar day (full or part) it is overdue" (Policy: Assessment of Coursework section 3.2.4)

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Submission Instructions

Please submit the assessment via Moodle before the due date.

Learning Outcomes Assessed

- Analyse how specific business analytics techniques influence critical success factors
- Apply descriptive business analytics techniques to assist managers to solve business problems
- Apply predictive and prescriptive business analytics techniques to assist managers to solve business problems.

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Self-management

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