



# ACCT28001 *Business Analytics Techniques*

## Term 1 - 2020

Profile information current as at 01/05/2024 11:50 pm

All details in this unit profile for ACCT28001 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

Prerequisite: STAT20029 Statistics for Managerial Decisions

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 - 2020

- 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. **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](#).

## 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				
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

ACCT28001

#### Prescribed

##### Business Analytics

Edition: 3 (2019)

Authors: Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams

Cengage Learning

Boston, MA, United States

ISBN: 9781337406420

Binding: eBook

#### Additional Textbook Information

The eBook is available at the Cengage website here:

<https://cengage.com.au/product/title/business-analytics/isbn/9781337406420>

However, paper copies can still be purchased from the CQUni Bookshop here: <http://bookshop.cqu.edu.au>

### IT Resources

#### You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- MS Excel Solver Add-in (MS office)
- MS Excel
- MS Access 2007 or 2010 or later

## Referencing Style

All submissions for this unit must use the referencing style: [American Psychological Association 6th Edition \(APA 6th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Peter Best** Unit Coordinator

[p.best@cqu.edu.au](mailto:p.best@cqu.edu.au)

## Schedule

### Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to unit Introduction to business analytics Analytics in banking Analytics in other areas Competing with analytics	Cam 3e 1, App A	

### Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Data concepts, warehouses, database systems and big data, relationships, queries

Cam 3e App B, B.1-2

### Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Exporting data, importing data, dimensional modelling	Cam 3e App B, B.3-5	Quiz 1 opens on Friday 27 March, 9:00 AEST.

### Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Descriptive statistics	Cam 3e 2	Quiz 1 closes on Friday 3 April 9:00 AEST.

### Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Data visualization	Cam 3e 3	Quiz 2 opens on Friday 10 April 9:00 AEST.

### Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Self-study		

### Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Descriptive data mining Missing data Cluster Association/sequence	Cam 3e 4	Quiz 2 closes on Friday 24 April 9:00 AEST.

### Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Regression	Cam 3e 7	Quiz 3 opens on Friday 1 May 9:00 AEST.

### Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Time series analysis and Forecasting	Cam 3e 8	Quiz 3 closes on Friday 8 May 9:00 AEST. <b>Project 1 - Descriptive Techniques</b> Due: Week 8 Friday (8 May 2020) 5:00 pm AEST

### Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Simulation	Cam 3e 11	Quiz 4 opens on Friday 15 May 9:00 AEST.

### Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Linear optimization	Cam 3e 12	Quiz 4 closes on Friday 22 May 9:00 AEST.

### Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Data analytics, maturity, institutionalization, agility, performance	Readings	Quiz 5 opens on Friday 29 May 9:00 AEST.

### Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
Unit Review		Quiz 5 closes on 5 June 9:00 AEST.  <b>Project 2 - Predictive and Prescriptive Techniques</b> Due: Week 12 Friday (5 June 2020) 5:00 pm AEST
<b>Review/Exam Week - 08 Jun 2020</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Self-study		
<b>Exam Week - 15 Jun 2020</b>		
Module/Topic	Chapter	Events and Submissions/Topic

## Assessment Tasks

### 1 Fortnightly Quizzes

#### Assessment Type

Online Quiz(zes)

#### Task Description

Five (5) fortnightly online quizzes are required to be completed. Each quiz is to be completed individually, is open for approximately 7 days, and covers the preceding 2 weeks of classes. The first quiz opens in Week 3. Each quiz consists of a set of multiple-choice questions and is marked out of 15. The weighting for quiz results is 25% of the total marks.

#### Number of Quizzes

5

#### Frequency of Quizzes

Fortnightly

#### Assessment Due Date

Fortnightly quizzes will open on Friday at 9:00 AEST and will close on the following Friday at 9:00 AEST. Quiz 1 opens on Friday in Week 2 and closes on Friday in Week 3. Quiz 2 opens on Friday in Week 4 and closes on Friday in Week 5. And, so on.

#### Return Date to Students

Your results of the quiz will be automatically generated and will be displayed upon completion of the quiz. You can access your results again on the unit website via the Gradebook. You will be able to check your quiz for incorrect answers after the quiz has closed.

#### Weighting

25%

#### Assessment Criteria

Assessing students' ability to distinguish the primary categories of business analytics techniques, and identify their role in improving decision making and critical success factors for a data-driven organisation.

#### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

#### Submission

Online

#### Submission Instructions

Each quiz is to be completed online within Moodle.

#### 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 Project 1 - Descriptive Techniques

### Assessment Type

Project (applied)

### Task Description

This project assesses students' ability to apply descriptive business analytics techniques to assist managers to solve business problems. Several case studies will be examined, where students will use software to analyse data and provide a report to management on findings.

### Assessment Due Date

Week 8 Friday (8 May 2020) 5:00 pm AEST

Submit Project 1 through Moodle.

### Return Date to Students

Marks and feedback will be available within 2 weeks of the due date.

### Weighting

35%

### Assessment Criteria

The project will examine students' ability in identifying relevant techniques and demonstrating knowledge, applying relevant techniques and knowledge to solve problems, and quality of writing, grammar, syntax and spelling.

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

### Submission

Online

### Submission Instructions

Project 1 is to be submitted through Moodle.

### 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 Project 2 - Predictive and Prescriptive Techniques

### Assessment Type

Project (applied)

### Task Description

This project assesses students' ability to apply predictive and prescriptive business analytics techniques to assist managers to solve business problems. Several case studies will be examined, where students will use software to analyse data and provide a report to management on findings.

### Assessment Due Date

Week 12 Friday (5 June 2020) 5:00 pm AEST

Submit Project 2 through Moodle.

### Return Date to Students

Marks and feedback will be available within 2 weeks of the due date.

### Weighting

40%

**Assessment Criteria**

The project will examine students' ability in identifying relevant techniques and demonstrating knowledge, applying relevant techniques and knowledge to solve problems, and quality of writing, grammar, syntax and spelling.

**Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

**Submission**

Online

**Submission Instructions**

Submit Project 2 through Moodle.

**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