ACCT20081 *Financial Data Analytics*
Term 2 - 2020

Profile information current as at 13/12/2025 03:55 pm

General Information

Overview

As the economy moves towards more digital disruption, management and auditors are seeking innovative technologies for generating timely information for decision making. The unit is designed to provide you with an understanding of how financial data of an organisation can be analysed in a timely manner using data analytics. You are introduced to concepts, tools, software and methodologies of business intelligence and how they are applied to the analysis of financial data. You will gain experience in analysing accounting audit trails, using audit software, detecting potential fraud, visualising data, and generating dashboards for performance reporting. This unit is suitable for students with minimal information systems background.

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

Pre-requisite ACCT20071 Foundations in Accounting and ACCT20072 Accounting Systems & Information Assurance OR ACCT20070 Accounting in Australia and ACCT28001 Business Analytics Techniques
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 - 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. **Practical Assessment**
Weighting: 20%
2. **Project (applied)**
Weighting: 30%
3. **Take Home Exam**
Weighting: 50%

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 Informal student comments

Feedback

Students appreciated the applied nature of the unit, providing exposure to a range of real-world data analytics software, and their application in accounting, fraud detection and auditing.

Recommendation

These strengths of the unit were strongly appreciated by students and will be continued.

Feedback from Informal student comments

Feedback

Students requested more worked examples relating to SAS and Tableau.

Recommendation

More time will be allocated to demonstrating examples during the Workshop sessions.

Unit Learning Outcomes

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

1. Describe and distinguish data concepts, decision support systems, data warehouses, and data analytics, and perform querying of data
2. Apply data analytics and data visualisation software to provide information for management and auditors
3. Analyse data structures and extract accounting audit trails from computerised accounting systems
4. Design audit procedures and apply audit software in substantive testing and fraud detection
5. Apply performance management principles and develop performance dashboards and other visual presentations for management.

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 - Practical Assessment - 20%	●	●			
2 - Project (applied) - 30%		●	●	●	●
3 - Take Home Exam - 50%	●		●	●	●

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 - Practical Assessment - 20%	○	○	○	○	○			
2 - Project (applied) - 30%	○	○	○	○	○			
3 - Take Home Exam - 50%	○		○					

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)
- Microsoft Excel
- SAS On Demand
- Tableau
- Microsoft Power BI
- Knime

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

Kishore Singh Unit Coordinator
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Schedule

Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introduction Business case for data analytics SAS Studio Demonstration	Lecture notes and materials are available in Moodle	SAS Computer Workshop 1

Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Data concepts, data quality, data warehouses Introduction to SAS Programming	Lecture notes and materials are available in Moodle	SAS Computer Workshop 2

Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Big Data SAS Programming 1	Lecture notes and materials are available in Moodle	SAS Computer Workshop 3

Week 4 - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Structured Query Language (SQL) Data matching SAS Programming 2	Lecture notes and materials are available in Moodle	SAS Computer Workshop 4

Week 5 - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Audit Trails Data extraction and preparation SAS Programming 3	Lecture notes and materials are available in Moodle	SAS Computer Workshop 5

Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
No classes this week.		

Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Developing audit procedures Applying audit software in substantive testing	Lecture notes and materials are available in Moodle	MS Excel Computer Workshop 1

Week 7 - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic

		MS Excel Computer Workshop 2
Fraud Detection Benford's Law	Lecture notes and materials are available in Moodle	**Practical Assessment** Due: Week 7 Friday (4 Sept 2020) 5:00 pm AEST

Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Future of Audit Continuous auditing and controls monitoring Introduction to Tableau	Lecture notes and materials are available in Moodle	Tableau Computer Workshop 1

Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Data Visualization Data analysis in Tableau	Lecture notes and materials are available in Moodle	Tableau Computer Workshop 2

Week 10 - 21 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Dashboards and performance reporting Charts and Dashboards in Tableau	Lecture notes and materials are available in Moodle	Tableau Computer Workshop 3

Week 11 - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Mapping Data Maps in Tableau	Lecture notes and materials are available in Moodle	Tableau Computer Workshop 4 **Project** Due: Week 11 Friday (2 Oct 2020) 5:00 pm AEST

Week 12 - 05 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Unit review	Lecture notes and materials are available in Moodle	No Computer Workshop this week

Review/Exam Week - 12 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 19 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Practical Assessment

Assessment Type
Practical Assessment

Task Description
Students perform a series of data analytics tasks to demonstrate their knowledge, understanding and skills in using the SAS software platform.

Assessment Due Date
Week 7 Friday (4 Sept 2020) 5:00 pm AEST

Week 7 Friday 4 September 2020 5:00 pm AEST

Return Date to Students
Week 9 Friday (18 Sept 2020)

Weighting
20%

Assessment Criteria
This assessment item evaluates the student's ability to use SAS software to perform basic tasks covered in weeks 1 to 5.

Referencing Style

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

Submission
Online

Submission Instructions
Submit SAS programs and associated output files, online via Moodle. Emailed submissions will not be accepted.

Learning Outcomes Assessed

- Describe and distinguish data concepts, decision support systems, data warehouses, and data analytics, and perform querying of data
- Apply data analytics and data visualisation software to provide information for management and auditors

Graduate Attributes

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

2 Project

Assessment Type
Project (applied)

Task Description
Students select and perform appropriate data analytics procedures using a combination of software tools and provided data. They apply principles learnt in the unit to analyse data and develop visual presentations to produce relevant reports. They report their findings in a professionally-documented report to management.

Assessment Due Date
Week 11 Friday (2 Oct 2020) 5:00 pm AEST

Week 11 Friday 02 October 2020 5:00 pm AEST

Return Date to Students
Review/Exam Week Friday (16 Oct 2020)

Weighting
30%

Assessment Criteria
This assessment will assess the student's ability to: identify analytics problems, select suitable procedures and software tools, solve problems and report findings that are supported by appropriate visualisations.

Referencing Style

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

Submission
Online

Submission Instructions
Submit Tableau files and final report, online via Moodle. Emailed submissions will not be accepted.

Learning Outcomes Assessed

- Apply data analytics and data visualisation software to provide information for management and auditors
- Analyse data structures and extract accounting audit trails from computerised accounting systems
- Design audit procedures and apply audit software in substantive testing and fraud detection
- Apply performance management principles and develop performance dashboards and other visual presentations for management.

Graduate Attributes

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

3 Take Home Exam

Assessment Type
Take Home Exam

Task Description
This is a written assessment consisting of theory questions covering content from weeks 1 to 12.

Assessment Due Date

Scheduled during Final Exam Week. Refer to exam timetable which will be made available in Moodle

Return Date to Students

Weighting
50%

Assessment Criteria
All content covered in weeks 1 to 12 are examined.

Referencing Style

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

Submission
Online

Submission Instructions
Submit answer file online via Moodle. Hand-written or emailed submissions will not be accepted.

Learning Outcomes Assessed

- Describe and distinguish data concepts, decision support systems, data warehouses, and data analytics, and perform querying of data
- Analyse data structures and extract accounting audit trails from computerised accounting systems
- Design audit procedures and apply audit software in substantive testing and fraud detection
- Apply performance management principles and develop performance dashboards and other visual presentations for management.

Graduate Attributes

- Knowledge
- Cognitive, technical and creative skills

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