COIS13013 *Business Intelligence*
Term 1 - 2017

Profile information current as at 14/12/2025 08:09 am

All details in this unit profile for COIS13013 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

The unit reviews how managers use computerised decision support systems for accessing important information, the principles of decision making, modelling and how Business Intelligence tools are used by enterprises to support decision making. The unit develops an understanding of what is unique about Information Systems that provide support for decision makers and how various information systems (DSS, Knowledge Based Systems, Group Support Systems, Business Intelligence) are integrated at the enterprise level to support decision making. Students complete practical work using a financial modelling language, analyse the information needs of decision makers, evaluate and develop tools in the implementation of what we call, all these technologies and systems collectively, Management Support Systems (MSS).

Details

Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Pre-requisite: COIT11226
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 - 2017

- Brisbane
- Distance
- Melbourne
- Rockhampton
- 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 Undergraduate 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. **Presentation and Written Assessment**
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 Course/Teaching Evaluation.

Feedback

Tutorial needs to be longer as it is hard to do presentations, then be able to do tutorial work and software tools.

Recommendation

The presentation assessment structure and requirements will be changed so that it does not cause any disruption to the tutorial class.

Action

The presentation assessment structure and requirements has been changed.

Feedback from Course/Teaching Evaluation.

Feedback

There should be quiz type assessments each week throughout the course.

Recommendation

A quiz type assessment will be introduced as part of assessment 2.

Action

An online quiz has been introduced as part of assessment 2.

Unit Learning Outcomes

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

1. describe the principles of decision theory and apply the theory to interpret the needs of decision makers, and apply the results in the implementation of MSS
2. describe basic concepts of MSS modelling and apply the process of model formulation and solution
3. analyse the information needs of decision makers and apply the results to business performance reporting
4. evaluate the role of Business Intelligence and Decision Support Systems tools in organisations at the enterprise level
5. describe role of knowledge in organisations and evaluate the use of collaborative technology to create, gather, and share knowledge
6. conduct research into new areas and products, relate them to development of MSS, and present your results to others.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles.
ACS members can use the tool MySFIA to build a skills profile at
https://www.acs.org.au/professionalrecognition/mysfia-b2c.html
This unit contributes to the following workplace skills as defined by SFIA. The SFIA code is included:

- Information Analysis (INAN)
- Data Analysis (DTAN)
- Research (RSCH)

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Legend: — 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	6
1 - Written Assessment - 40%	•	•	•	•	•	•
2 - Presentation and Written Assessment - 60%	•	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
1 - Communication	•	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•	•
3 - Critical Thinking	•	•	•	•	•	•
4 - Information Literacy	•	•	•	•	•	•
5 - Team Work	•	•	•	•	•	
6 - Information Technology Competence	•	•	•	•	•	•
7 - Cross Cultural Competence						
8 - Ethical practice	•	•				
9 - Social Innovation						
10 - 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	9	10
1 - Written Assessment - 40%	•	•	•	•	•	•		•		
2 - Presentation and Written Assessment - 60%	•	•	•	•	•	•		•		

Textbooks and Resources

Textbooks
COIS13013

Prescribed

Business Intelligence and Analytics: Systems for Decision Support
Edition: 10th edn Global (2015)
Authors: Sharda, R., Delen, D., & Turban, E.
Pearson Education
Upper Saddle River , NJ , USA
ISBN: 9781292009209
Binding: Paperback

Additional Textbook Information

View textbooks at the CQUniversity Bookshop

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

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Trueblue Visual DSS (course provided)
- WEKA (free downloadable)

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Santoso Wibowo Unit Coordinator
s.wibowo1@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
An Overview of Business Intelligence, Analytics, and Decision Support	Chapter 1 of Set Text.	
Week 2 - 13 Mar 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Foundations and Technologies for Decision Making	Chapter 2 of Set Text. Visual DSS tutorial & online manual.	
Week 3 - 20 Mar 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Data Warehousing	Chapter 3 of Set Text.	
Week 4 - 27 Mar 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Business Reporting, Visual Analytics, and Business Performance Management	Chapter 4 of Set Text.	

Week 5 - 03 Apr 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Data Mining for BI	Chapter 5 of Set Text.	

Vacation Week - 10 Apr 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**

Week 6 - 17 Apr 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Text Analytics and Text Mining	Chapter 7 of Set Text.	**Assignment 1 - Application of a DSS Tool** Due: Week 6 Friday (21 Apr 2017) 11:00 pm AEST

Week 7 - 24 Apr 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Web Analytics and Web Mining	Chapter 8 of Set Text.	

Week 8 - 01 May 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Modelling and Analysis	Chapter 10 of Set Text.	

Week 9 - 08 May 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Automated Decision Systems and Expert Systems	Chapter 11 of Set Text.	

Week 10 - 15 May 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Knowledge Management and Collaborative Systems	Chapter 12 of Set Text.	

Week 11 - 22 May 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Big Data and Analytics	Chapter 13 of Set Text.	

Week 12 - 29 May 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**
Business Analytics: Emerging Trends and Future Impacts	Chapter 14 of Set Text.	**Assignment 2 - Business Intelligence and Analytics** Due: Week 12 Friday (2 June 2017) 11:00 pm AEST

Review/Exam Week - 05 Jun 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**

Exam Week - 12 Jun 2017

Module/Topic	**Chapter**	**Events and Submissions/Topic**

Assessment Tasks

1 Assignment 1 - Application of a DSS Tool

Assessment Type
Written Assessment

Task Description

There are three questions in the assignment 1:

- The first question is related to a BI concept. Students are required to explain and describe the concept.
- The second question is related to investment decision making for business. Students need to use the Visual DSS tool to generate models and to derive the solutions for business decision making. Students also need to conduct risk analysis for change to this question.
- The third question is related to information obtaining and analysing. Students need to answer questions from a given case study.

Further details are available on the Moodle course website.

Assessment Due Date
Week 6 Friday (21 Apr 2017) 11:00 pm AEST

Return Date to Students
Week 8 Friday (5 May 2017)

Weighting
40%

Assessment Criteria
Your assessment will be marked according to the following criteria.

Discussion on the importance of business intelligence	10 marks
Appropriate use of Visual DSS for generating models and deriving business solutions	20 marks
Discussion on information gathering and analysis	10 marks

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
See assignment specification document on the course website.

Learning Outcomes Assessed

- describe the principles of decision theory and apply the theory to interpret the needs of decision makers, and apply the results in the implementation of MSS
- describe basic concepts of MSS modelling and apply the process of model formulation and solution
- analyse the information needs of decision makers and apply the results to business performance reporting
- evaluate the role of Business Intelligence and Decision Support Systems tools in organisations at the enterprise level
- describe role of knowledge in organisations and evaluate the use of collaborative technology to create, gather, and share knowledge
- conduct research into new areas and products, relate them to development of MSS, and present your results to others.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

2 Assignment 2 - Business Intelligence and Analytics

Assessment Type
Presentation and Written Assessment

Task Description
Assignment 2 is divided into two parts: (a) a written assignment with four questions plus an oral presentation worth

45%, and (b) an online quiz worth 15%.

The theoretical questions cover topics in business intelligence and analytics areas. Students are also required to use a data mining tool to classify, analyse and report data. Internal students need to deliver an oral presentation to the class. External/distance students will be provided details regarding the oral presentation via email.

The online quiz consists of 30 True/False/Multiple-Choice questions. You will be given one attempt to complete the quiz. There will be a time limit of 30 minutes to complete the quiz. The quiz opens on Monday, 29 May 2017, 9 AM and closes on Friday, 2 June 2017, 11 PM.

Further details about assignment 2 can be found on the course website.

Assessment Due Date

Week 12 Friday (2 June 2017) 11:00 pm AEST

Return Date to Students

Certificate date (required for courses without exams)

Weighting

60%

Assessment Criteria

Your assignment 2 will be marked according to the following criteria.

Discussion on the importance of business intelligence	10 marks
Appropriate use of WEKA for data analysis	15 marks
Discussion on information gathering and analysis	10 marks
Oral presentation	10 marks
Online quiz	15 marks

Referencing Style

- Harvard (author-date)

Submission

Online

Submission Instructions

Please check assignment 2 details on the Moodle course website.

Learning Outcomes Assessed

- describe the principles of decision theory and apply the theory to interpret the needs of decision makers, and apply the results in the implementation of MSS
- describe basic concepts of MSS modelling and apply the process of model formulation and solution
- analyse the information needs of decision makers and apply the results to business performance reporting
- evaluate the role of Business Intelligence and Decision Support Systems tools in organisations at the enterprise level
- describe role of knowledge in organisations and evaluate the use of collaborative technology to create, gather, and share knowledge
- conduct research into new areas and products, relate them to development of MSS, and present your results to others.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

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