PSYC14047 *Advanced Data Analysis*
Term 1 - 2019

Profile information current as at 29/04/2024 01:21 am

All details in this unit profile for PSYC14047 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.

Corrections

General Information

Overview
This module develops the analytic skills necessary for implementing applied psychological research and analysis. As such, the module provides for both theoretical input and a heavy component of computer based experiential exercises using the SPSS statistics package.

Details
Career Level: *Undergraduate*
Unit Level: *Level 4*
Credit Points: *6*
Student Contribution Band: *10*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Academic Course = CU77 or CA44 or CC42
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 - 2019
- Bundaberg
- Online

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).

Residential Schools
This unit has a Optional Residential School for distance mode students and the details are:
Click here to see your [Residential School Timetable](#).

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. **Online Quiz(zes)**
Weighting: 20%
2. **Practical Assessment**
Weighting: 60%
3. **Examination**
Weighting: 20%

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 Formal and informal textbooks

Feedback

Update unit content to reflect current MACROs and the new Field textbook

Recommendation

With the introduction of the new PROCESS macro, new instructions for installing and using the macro will be required. Lecture content will need to be updated to support the new textbook.

Unit Learning Outcomes

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

1. Employ statistical writing skills to the level required for fourth-year psychology
2. Implement applied psychological research analysis
3. Demonstrate an in-depth knowledge of a variety of advanced analytic techniques
4. Choose appropriate analyses relevant to specific research designs
5. Write and present findings in a scientific format

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 - Online Quiz(zes) - 20%			•	•	
2 - Practical Assessment - 60%	•	•		•	•
3 - Examination - 20%			•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•		
2 - Problem Solving	•	•	•	•	•
3 - Critical Thinking		•	•	•	•

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 - Online Quiz(zes) - 20%	•	•	•		•	•		•		
2 - Practical Assessment - 60%	•	•	•	•		•				
3 - Examination - 20%	•	•	•	•		•				

Textbooks and Resources

Textbooks
PSYC14047

Prescribed

Discovering statistics using IBM SPSS statistics
Edition: 5th (2018)
Authors: Andy Field
Sage
London , UK
ISBN: 9781526419521
Binding: Paperback
PSYC14047

Supplementary

SPSS Survival Manual
Edition: 6th (2016)
Authors: Julie Pallant
Allen and Unwin
Berkshire , England
ISBN: 9781760291952
Binding: Paperback

Additional Textbook Information
Students with the previous versions are advised to access the new edition wherever possible due to differences/revisions in Field's text for 2018.
Copies of both texts can be purchased at the CQUni Bookshop here: http://bookshop.cqu.edu.au (search on the Unit code)

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- IBM SPSS Statistics Graduate Pack edition. Preferably the latest version 25

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

Tina McAdie Unit Coordinator
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Amy Reynolds Unit Coordinator
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Schedule

Week 1 - 11 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic

| Elements of advanced statistics | Field, Version 4, Chapters 1 and 2
Field, Version 5, Chapters 1, 2 and 3 | eFil Quiz (not graded)
SPSS practical (not graded) |

Week 2 - 18 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Model bias	Field, Version 4, Chapter 5 Field, Version 5, Chapter 6	eFil quiz SPSS practical

Week 3 - 25 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Correlation	Field, Version 4, Chapter 7 Field, Version 5, Chapter 8	eFil quiz SPSS practical

Week 4 - 01 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Regression	Field, Version 4, Chapter 8 Field, Version 5, Chapter 9	eFil quiz SPSS practical

Week 5 - 08 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Comparing means (GLM1)	Field, Version 4, Chapters 9 and 11 Field, Version 5, Chapters 10 and 11	eFil quiz SPSS practical

Vacation Week - 15 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 22 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Moderation and mediation	Field, Version 4, Chapter 10 Field, Version 5, Chapter 11	eFil quiz (not graded) SPSS practical (not graded)

Week 7 - 29 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Analysis of covariance (GLM2)	Field, Version 4, Chapter 12 Field, Version 5, Chapter 13	eFil quiz SPSS practical

Week 8 - 06 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Factorial ANOVA (GLM3)	Field, Version 4, Chapter 13 Field, Version 5, Chapter 14	eFil quiz SPSS practical

Week 9 - 13 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Repeated measures designs (GLM4)	Field, Version 4, Chapter 14 Field, Version 5, Chapter 15	eFil quiz SPSS practical

Week 10 - 20 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Mixed design ANOVA (GLM5)	Field, Version 4, Chapter 15 Field, Version 5, Chapter 16	eFil quiz SPSS practical

Week 11 - 27 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Exploratory factor analysis	Field, Version 4, Chapter 17 Field, Version 5, Chapter 18	eFil quiz SPSS practical

Week 12 - 03 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic
Logistic regression	Field, Version 4, Chapter 19 Field, Version 5, Chapter 20	eFil quiz SPSS practical

Review/Exam Week - 10 Jun 2019		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Exam Week - 17 Jun 2019		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Assessment Tasks

1 eFIL EXERCISES (10 assessed + 2 non-assessed)

Assessment Type
Online Quiz(zes)

Task Description
eFIL (electronic Focused Interactive Learning) is an innovative method of assessment that encourages active learning and communication among students, irrespective of location. eFIL activities are incorporated into modules 2-5 and 7-12.
Each eFIL exercise will comprise a weighted 2% of the unit grade. eFIL exercises also occur in weeks 1 and 6 but these do not contribute to your final unit grade.

What's Involved?
Each week students will complete a multiple choice quiz containing 5 'complex-reasoning' and content-knowledge questions. The quiz will be open from Monday morning 9:00 until the following Monday night 23:59 and questions will be based on that week's unit content. Students need to attempt the quiz twice, with the second attempt being graded.
After the first attempt you will have access to an eFIL Discussion forum for that week, which allows you to discuss the quiz with a small group of other students, before taking your second (and graded) attempt at the quiz. Each quiz is open for 20 minutes.

How is eFIL different from a normal quiz?
eFIL assessment provides students with the opportunity to discuss their answers with a small group of students online, just as if they were in a classroom tutorial session. Every week, after the first quiz attempt has been made, students will be able to enter a forum as part of a small group of students, where they will have the opportunity to discuss their answers and the reasons for these answers. All students will then take the quiz a second time; open until a following Monday night deadline; with the benefits of knowing the views of other students. Only the second quiz attempt is graded.
IMPORTANT: It is strongly encouraged that students keep up to date with iterative assessments. In extenuating circumstances (and in accordance with assessment policy and procedure) an alternative question bank and dataset can be arranged; however please note that this is unlikely to be approved if close to the due date, so students need to plan their time accordingly.

Number of Quizzes
10

Frequency of Quizzes
Weekly

Assessment Due Date

Each weekly eFIL activity closes at 11:59pm on the Monday of the following calendar week (e.g. Week 1 eFIL closes on teh Monday of Week 2).

Return Date to Students

Marked answers with solutions are available when the quiz closes and further feedback is provided via forums and weekly consultation sessions.

Weighting
20%

Assessment Criteria
Each quiz question is in multiple choice format and are weighted equally. Each individual eFIL activity is worth 2%. There are five (5) questions in each activity, and each question is weighted equally.

Referencing Style

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

Submission
Online

Submission Instructions
Quiz is completed via the moodle site.

Learning Outcomes Assessed

- Demonstrate an in-depth knowledge of a variety of advanced analytic techniques
- Choose appropriate analyses relevant to specific research designs

Graduate Attributes

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

2 SPSS Practical Exercises (10 Assessed + 2 Non-assessed)

Assessment Type
Practical Assessment

Task Description
Practical proficiency in analysing data will be assessed via the completion of data analysis exercises in SPSS. Due to the unit being offered by distance, data-sets and questions will be provided for analysis via Moodle in weeks 2, 3, 4, 5, 7, 8, 9, 10, 11 and 12. As in the case of the eFIL exercises, SPSS practicals also occur in weeks 1 and 6 but these do not contribute to your final unit grade.

Content Covered
Each SPSS practical exercise will cover material for that teaching week: i.e. SPSS practical 1 will cover material from teaching week 1. Importantly, the SPSS practical exercises will be based heavily on the 'Smart Alex's tasks' at the end of each chapter in the text. Therefore, students should ensure they complete and then read the feedback (available as supporting content from the publisher's website) for the relevant Smart Alex's tasks before attempting the practical exercise. For example, students should complete all the Smart Alex's tasks for chapters 1 and 2 in week 1 before attempting the quiz. Student should also complete their review of the chapter content for that week before attempting the SPSS practical.

Timing
Each SPSS practical will open in the morning on the Monday of the current teaching week, and close at 11:59 on the following Monday. Note that the window for completing each assessment is the same as the eFIL quizzes. In contrast to eFIL, the SPSS practicals are not intended as group discussion exercises are and rather focused on developing your confidence to independently conduct and interpret statistical analysis. A time-limit of 2 hours is enforced for entering the answers of each SPSS practical. Therefore, students should ensure they take steps to avoid technical issues, are fully prepared, and have sufficient time to complete the questions before beginning the assessment.
IMPORTANT: It is strongly encouraged that students keep up to date with iterative assessments. In extenuating

circumstances (and in accordance with assessment policy and procedure) an alternative question bank and dataset can be arranged; however please note that this is unlikely to be approved if close to the due date, so students need to plan their time accordingly.

Assessment Due Date

Each weekly SPSS practical activity closes at 11:59pm on the Monday of the following calendar week (e.g. Week 1 SPSS Practical Exercise closees on the Monday of Week 2)

Return Date to Students

Fully detailed feedback and walkthroughs of each data analysis task will be made available immediately after the activity closes.

Weighting
60%

Assessment Criteria

Each SPSS practical exercise is worth 6% of your unit grade, and will involve analysing data using SPSS. Grades are determined by answering 6 specific questions regarding the data, analysis and results via Moodle. Questions will be in a variety of formats. Some questions will be quite concrete (e.g. stating an item of SPSS output) whilst others will require interpretation and judgement. Answers will be entered by students in a variety of formats, including entering a numeric value and selecting one or more statements from a list. Most questions are marked either correct (full marks for that item) or incorrect (no marks for that item). However questions that involve selecting one or more correct statements from a list will provide credit for partially correct answers. See document Guidelines for the eFIL & SPSS Practicals on Moodle website for further details.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Online

Learning Outcomes Assessed

- Employ statistical writing skills to the level required for fourth-year psychology
- Implement applied psychological research analysis
- Choose appropriate analyses relevant to specific research designs
- Write and present findings in a scientific format

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

Examination

Outline
Complete an invigilated examination.

Date
During the examination period at a CQUniversity examination centre.

Weighting
20%

Length
150 minutes

Exam Conditions
Closed Book.

Materials
Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

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