

Printed: 02 February 2024, 08:36AM

The published on-line version of the Course Profile is the authoritative version and by the publication of the Course Profile on-line the University deems the student has been notified of and read the course requirements.

1. General Course Information

1.1 Course Details

COURSE CODE	2013AHS
COURSE TITLE	Research Methods and Statistics
ACADEMIC ORGANISATION	SHS School of Health Sciences and Social Work
TRIMESTER	Trimester 2 2023
MODE	In Person
LEVEL	Undergraduate
LOCATION	Gold Coast, On Campus
CREDIT POINT VALUE	10

Course Description:

This course, Research Methods and Statistics provides students with the mathematical skills used in measurement, processing and analysing of data typical of those obtained in Exercise Science. The course also provides an introduction to experimental design and statistical analyses appropriate to investigations in Exercise Science. No Prerequisites.

Assumed Background:

This course is about research methods and statistics and requires some mathematical competence. However, the course is focussed on *statistical concepts rather than mathematical skills*. So a modest mathematical background, allied with a willingness to learn about a quantitative discipline, should be adequate for this course. The course includes a computer component that involves using Microsoft Excel to perform basic statistical tests.

1.2 Course Introduction

To evaluate data, it is necessary to understand the factors that influence the quality of data and how data obtained from a small group can be used to make inferences and general conclusions about populations. In this course, students will learn about study design, methods used to collect and describe data, how to determine and interpret the association between measured variables and how to test hypotheses concerning the relationships between, or among, data from different experimental groups. Emphasis is placed on recognising appropriate analytical methods, being able to implement these using Microsoft Excel, and being able to interpret the outputs of statistical tests. These aims and skills are underpinned by the development of critical thought in relation to evaluation of experimental data. This course provides a foundation for subsequent Exercise Science and other Allied Health courses in which clinical practice is substantially informed by research. Learning outcomes for this course are directly mapped to Exercise and Sport Science Australia's (ESSA) Accredited Exercise Scientist Professional Standards 2020. This course will be taught in a blended format, and will include essential face-to-face computer laboratories and assessments.

Previous Student Feedback

Past students very much enjoyed the research project assessment and the emphasis placed on learning about cutting-edge research. Further, students like the conceptual rather than mathematical emphasis of the course and appreciate the logical progression through the ideas that underpin statistical analyses. All course materials are available on Learning@Griffith. Training in Excel skills, carried out during the computer laboratories, has also received much favourable comment. Short videos are also available to provide step-by-step instructions for performing statistical tests in Excel. These are popular, and judging from the assessment piece that relates to the computer laboratories, are very effective.

1.3 Course Staff

Primary Convenor **Mr Tim Newans**

EMAIL	t.newans@griffith.edu.au
CAMPUS	Gold Coast Campus
BUILDING	Clinical Science 1 (G02)
CONSULTATION	<p>By appointment.</p> <p>All course content, including lecture and computer laboratory material, information on assessment items, and sample problems and worked answers will be posted on the Learning@Griffith site.</p> <p>**Announcements concerning any pertinent changes to the course and important information will be conveyed via the Learning@Griffith "Announcements" page.**</p>

1.4 Timetable

Timetables are available on [the Programs and Courses website](#).

NB: Details contained in this section of the course profile and section 4.1 Learning Activities are to be read in conjunction with the official class timetable. The published class timetable which is the authoritative source for timetabling information for all campuses can be located by clicking on the link above.

Additional Timetable Information

Timetable

Course Organisation	Day(s) and time(s)	Venue
Lecture Weeks 1-12	Lectures will be delivered live on Collaborate ULTRA or Teams via the Learning@Griffith site on Mondays 8-9am and Tuesdays 11-12pm.	Collaborate ULTRA or Teams
Computer Lab Weeks 2 - 4, 6 - 9, 11 - 12	Computer labs will be delivered face-to-face and attendance is required.	Specific to timetable: G30 2.14 G01 3.38

1.5 Lecture Capture

It is standard practice at Griffith University that lectures timetabled in lecture capture-enabled venues are recorded and made available to students on the relevant course site, in accordance with the University's [Lecture Capture Policy](#).

The lecture series delivered as part of this course will be recorded and accessible via the Learning@Griffith course site.

1.6 Technical Specifications

All students will be required to have access to a computer, a working internet connection and microsoft office (Excel and Word) and a PDF viewer/reader (e.g., Adobe).

2. Aims, Outcomes & Graduate Attributes

2.1 Course Aims

Research Methods and Statistics aims to provide students with an understanding of experimental design and research methodology, and to develop skills in critical evaluation and statistical analysis. This course is designed to provide students with the skills used in measurement and analysis of data typical of those obtained in Exercise Science and Allied Health professions. Specifically, the course aims to introduce students to: (i) methods used to collect and describe data; (ii) application of various statistical analyses; and (iii) interpretation of experimental results.

2.2 Learning Outcomes

After successfully completing this course you should be able to:

- 1 Describe the primary types, applications, and limitations of qualitative and quantitative research study designs.
- 2 Use research databases to access peer-reviewed scientific literature, conduct searches to identify relevant information, and appropriately interpret and cite the research of others.
- 3 Appraise research methods and statistical results to understand methodological and ethical aspects of research.

- 4 Design an experiment to address a specific hypothesis while minimising the influences of confounding variables.
- 5 Understand and apply statistical analysis techniques appropriate to exercise science sub-disciplines and interpret results.

2.3. Graduate Attributes

For further details on the Griffith Graduate please [click here](#)

Griffith University prepares influential graduates to be:

- [Knowledgeable and skilled, with critical judgement](#)
- [Effective communicators and collaborators](#)
- [Innovative, creative and entrepreneurial](#)
- [Socially responsible and engaged in their communities](#)
- [Culturally capable when working with First Australians](#)
- [Effective in culturally diverse and international environments](#)

This table demonstrates where each of the Griffith Graduate Attributes is taught, practised and assessed in this course.

For further details on the Griffith Graduate Attributes please refer to [The Griffith Graduate policy](#).

University wide attributes

GRADUATE ATTRIBUTE	TAUGHT	PRACTISED	ASSESSED
Knowledgeable and skilled, with critical judgement	•	•	•
Effective communicators and collaborators	•	•	•
Innovative, creative and entrepreneurial	•	•	•
Socially responsible and engaged in their communities	•		

Additional Course Information on Graduate Attributes

This course addressed the following ESSA standards:

- Describe the primary types, applications and limitations of qualitative and quantitative research study designs.
- Use research databases to access peer-reviewed scientific literature and conduct searches to identify relevant information.
- Appraise research methods and reports, including statistical results to understand methodological and ethical aspects of research, and integrate this knowledge into all areas of exercise science practice.
- Cite the research of others in written and oral communication.
- Select and apply basic data analysis techniques appropriate to exercise science sub-disciplines.

3. Learning Resources

3.1 Required Resources

Details of your Required Learning Resources are available from the [Reading List](#).

3.2 Recommended Resources

Details of your Recommended Learning Resources are available from the [Reading List](#).

3.3 University Learning Resources

The University provides many facilities and support services to assist students in their studies. Links to information about University support resources that are available to students include:

Readings: From the reading list, students can access Required and Recommended Learning Resources through direct links to articles, ebooks, databases, websites, the Library catalogue and digitised readings in one convenient place. Students can also prioritise their readings, add personal study notes, and export citations.

Learning@Griffith: There is a dedicated page for this course at myGriffith.

Student Support: Provides a range of services to support students throughout their studies including personal support such as Counselling and Health Services; Academic support; and Financial and Welfare support.

Careers and Employment: The team provides Career Wellbeing, Career Planning and Decision Making, Finding Jobs, Skills Identification and Development, Graduate Employment Information, LinkedIn Profile Review, Interview Preparation, Online Psychometric and Aptitude Test Preparation, International Student Support, Disability Disclosure Strategies and Higher Degree Research (HDR) Career Consultations.

Library: The Library provides a wide range of quality client-focused services and programs to students, researchers and staff of the University. The Library works in collaboration with the academic community to achieve academic and research outcomes.

Student Computing: The University provides access to common use computing facilities for educational purposes.

[Griffith Information Technology Code of Practice.](#)

Academic Integrity Tutorial: This tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of academic misconduct, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

Academic Integrity Declaration

Breaches of academic integrity seriously compromise student learning, as well as the academic quality of the University's programs. All breaches of academic integrity are taken seriously.

By enrolling in this course and submitting assessment, I agree that:

- I have read the [Institutional Framework for Promoting Academic Integrity among Students](#) and the [Student Academic Misconduct Policy](#).
- Except where indicated through references/citations, all assessment submitted will be my own work, based on my personal study and/or research.
- I will not collude with another student or person in the production of assessment in this course unless group work and collaboration is an expectation of the assessment item.
- No assessment item has been submitted for assessment in any other course at Griffith, or at any other University or at any other time in the same course without the permission of the relevant Course Convenor.
- I will not copy in part or in whole or otherwise plagiarise the work of other students and/or other persons.
- I will not make any of my assessment in this course available to another student, without the permission of the Course Convenor.
- In the case of online quizzes and examinations, I will only access the materials permitted in the exam instructions and limit my internet usage to what is needed to take the exam.

I accept that should I be found to be in breach of the non-disclosure provision identified above, action will be taken under the [Student Academic Misconduct Policy](#). Penalties may include failing the course or exclusion from the University.

I also **acknowledge** and agree that the course convenor may:

- Give access to assessment to another Griffith staff member for the purpose of marking.
- Submit assessment items to a text-matching service. This web-based service will retain a copy of any assessment item for checking the work of other students but will not reproduce it in any form.
- Use assessment items for the purposes of moderation, or as exemplars, according to University policies.

3.5 Other Learning Resources & Information

The Learning@Griffith course site has additional learning resources as follows:

All lecture material - power point slides and research papers used.

Recordings of all lectures.

Worked answers to problems in textbook.

Short online self-assessment quizzes corresponding to each component of course.

Sample tests prior to assessments.

Instructional how-to videos for each computer laboratory.

Completed exemplar spreadsheets for each computer laboratory (provided after each class is completed).

4. Teaching & Learning Activities

4.1 Learning Activities

Week Commencing	Activity	Learning Outcomes
17 Jul 23	Lecture 1 (Lecture): Introduction to statistics Readings: Agresti (Chapter 1.1-1.3)	1
18 Jul 23	Lecture 2 (Lecture): Descriptive statistics Readings: Agresti (Chapter 2.1-2.2)	1, 3, 5
24 Jul 23	Lecture 3 (Lecture): Descriptive statistics continued Readings: Agresti (Chapter 2.3-2.6)	1, 3, 5
25 Jul 23	Lecture 4 (Lecture): Association between groups Readings: Agresti (Chapter 3)	1, 3, 5
25 Jul 23	Computer Lab 1 (Laboratory): Excel basics & descriptive statistics	5
31 Jul 23	Lecture 5 (Lecture): Quantitative study design & methodology Readings: Agresti (Chapter 4.1-4.2)	1, 3, 5
1 Aug 23	Computer Lab 2 (Laboratory): Plotting and linear regression	5
1 Aug 23	Lecture 6 (Lecture): Quantitative study design & methodology continued Readings: (Chapter 4.3-4.4)	1, 3, 5
7 Aug 23	Computer Lab 3 (Laboratory): Introduction to research project (group/topic assignments); searching the literature; collecting data for your research project	1, 2, 3, 4, 5
7 Aug 23	Lecture 7 (Lecture): Qualitative study design & methodology	1, 3
8 Aug 23	Lecture 8 (Lecture): Probability Readings: Agresti (Chapter 5.1-5.4)	1, 3, 5
21 Aug 23	Lecture 9 (Lecture): Probability distributions & the normal distribution Readings: Agresti (Chapter 6; 7.1-7.2)	1, 3, 5
22 Aug 23	Lecture 10 (Lecture): Sampling distributions Readings: Agresti (Chapter 7.1-7.3)	1, 3, 5
28 Aug 23	Lecture 11 (Lecture): Assessment preview and revision. Lecture will be pre-recorded and posted on L@G due to Public Holiday.	1, 3, 5
29 Aug 23	Computer Lab 4 (Laboratory): Probability calculations	5
29 Aug 23 11:00 - 29 Aug 23 12:00	Test 1: (Test): Sixty minute test on material from lectures 1 to 11 to be completed online on Tuesday Week 6 (11:00 am - 12:00 pm).	
4 Sep 23	Lecture 12 (Lecture): Confidence intervals Readings: Agresti (Chapter 8.1, 8.3)	1, 3, 5
5 Sep 23	Lecture 13 (Lecture): Calculating and interpreting confidence intervals Readings: Agresti (Chapter 8.3-8.4)	1, 3, 5
5 Sep 23	Computer Lab 5 (Laboratory): Revisit research project	1, 2, 3, 4, 5
11 Sep 23	Lecture 14 (Lecture): Hypothesis tests Readings: Agresti (Chapter 9.1, 9.3)	1, 3, 5
12 Sep 23	Computer Lab 6 (Laboratory): Confidence intervals	5
12 Sep 23	Lecture 15 (Lecture): Hypothesis tests: decisions, errors & limitations Readings: Agresti (Chapter 9.5)	1, 3, 5
18 Sep 23	Lecture 16 (Lecture): Hypothesis tests: comparing two groups Readings: Agresti (Chapter 10.2-10.4)	1, 3, 5
19 Sep 23	Computer Lab 7 (Laboratory): Hypothesis tests: independent and paired sample t-tests	5
19 Sep 23	Lecture 17 (Lecture): Analysis of variance Readings: Agresti (Chapter 14.1-14.2)	1, 3, 5
25 Sep 23	Lecture 18 (Lecture): Two-way analysis of variance Readings: Agresti (Chapter 14)	1, 3, 5

Week Commencing	Activity	Learning Outcomes
26 Sep 23	Lecture 19 (Lecture): Data science for exercise & sport	1, 3
29 Sep 23 17:00	Research project due (Assessment): By 17:00 on 29th Sept 2023	
2 Oct 23	Lecture 20 (Lecture): Assessment preview and revision	1, 3, 5
3 Oct 23	Computer Lab 8 (Laboratory): One-way analysis of variance	5
3 Oct 23 11:00 - 3 Oct 23 12:00	Test 2 (Test): Sixty minute test on material from lectures 12 to 20 to be completed online on Tuesday Week 11 (11:00 am - 12:00 pm).	
9 Oct 23	Industry-Focused Lecture (Lecture): Data science: an industry perspective	1, 3, 5
10 Oct 23 09:30 - 10 Oct 23 11:00	Computer skills test (Laboratory): Test of computer skills from laboratories 1-8 using Excel for statistical analyses.	

4.2 Other Teaching and Learning Activities Information

Lectures

There are two lectures each week. The lecture content will include (i) delivery of core information, (ii) examples of solving problems that are similar to those which will be assessed, and (iii) a guide to sections of the textbook that reinforce and expand upon lecture material. Students will be expected to supplement the lecture material by reading the relevant sections of the textbook and performing example problems from the textbook and online quizzes; students will be directed to relevant problems during lectures.

Online resources

The course's Learning@Griffith site will include the following:

- (1) Copies of lecture slides (in pdf format).
- (2) Worked answers to problems in textbook (pdf format).
- (3) Self-assessment tests in multiple-choice format that can be performed online and are marked automatically. The marks are not recorded.
- (4) Copies of research papers referred to in lectures (pdf format).
- (5) Links to relevant websites for further statistical and research information.

Computer lab classes

The lecture material will be supported by computer laboratory exercises. In these exercises, students will learn to use Microsoft Excel to perform statistical analyses ranging from simple descriptive statistics to complex multivariate analyses. Short instructional videos will be provided to support the laboratory exercises.

Students are expected to perform about 2 hours of independent study each week, consisting of reading specified sections of the textbook and performing sample problems. Support for solving sample problems and additional problems similar to those that will be provided in the tests and final exam will be available either in the textbook or via the Learning@Griffith website.

5. Assessment Plan

5.1 Assessment Summary

This is a summary of the assessment in the course. For detailed information on each assessment, see [5.2 Assessment Detail](#) below.

ASSESSMENT TASK	DUE DATE	WEIGHTING	MARKED OUT OF	LEARNING OUTCOMES	MAXIMUM EXTENSION PERIOD
<i>Exam - selected and constructed responses</i> Test 1 (Week 6)	29 Aug 23 11:00 - 29 Aug 23 12:00 Online test	30%	35 marks	1, 3, 5	
<i>Assignment - Research-based Assignment</i> Research project assessment (Week 10)	29 Sep 23 17:00 - 29 Sep 23 17:00	25%	25 marks	1, 2, 3, 4, 5	
<i>Exam - selected and constructed responses</i> Test 2 (Week 11)	3 Oct 23 11:00 - 3 Oct 23 12:00 Online test	30%	35 marks	1, 3, 5	
<i>Test or quiz</i> Computer Skills Test (week 12)	9 Oct 23 - 11 Oct 23	15%	15 marks	1, 5	

5.2 Assessment Detail

Title: Test 1 (Week 6)

Type: Exam - selected and constructed responses

Learning Outcomes Assessed: 1, 3, 5

Due Date:

29 Aug 23 11:00 - 29 Aug 23 12:00 Online test

Weight: 30%

Marked out of: 35

Duration: 60 minutes

Exam Type: Closed Book with Notes

Exam Format: Online (Non-ProctorU)

Task Description:

The 60 min test will be carried out online on Tuesday morning (11:00 am - 12:00 pm) in Week 6. The test will consist of multiple-choice and short answer questions. The test will cover material presented in the lectures 1 - 11. The purpose of the test is to evaluate knowledge acquisition, statistical reasoning, and comprehension of the conceptual bases of research methods and statistical analysis. Any formulae required in the test will be provided on the test paper and, where required, students may use a scientific calculator to calculate answers.

Criteria & Marking:

Marks, as specified, will be given for correct answers to questions.

This assessment item:

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: Research project assessment (Week 10)

Type: Assignment - Research-based Assignment

Learning Outcomes Assessed: 1, 2, 3, 4, 5

Due Date:

29 Sep 23 17:00 - 29 Sep 23 17:00

Weight: 25%

Marked out of: 25

Task Description:

Together with their group, students will be required to design a research study to answer a critical question relevant to the Exercise Science discipline. Students will find justification within the scientific literature, appropriately design their study, collect data using applicable methodology, and carry out appropriate statistical analyses and interpretation of their results as part of a scientific investigation.

Criteria & Marking:

Students are expected to write a scientific report detailing the rationale for their study, research methods, statistical results, discussion with respect to the current literature, and future recommendations. One assessment will be submitted per group, in addition to copies of consent forms from all participants. Criteria for marking is included in the associated marking rubric.

Submission: Via the 'Assignments' tool in Learning@Griffith. Instructions regarding the submission process will be provided by the Course Convenor.

This assessment item:

- is a school based activity
- is a group activity
- does not include a self assessment activity
- does not have a resubmission provision

Title: Test 2 (Week 11)

Type: Exam - selected and constructed responses

Learning Outcomes Assessed: 1, 3, 5

Due Date:

3 Oct 23 11:00 - 3 Oct 23 12:00 Online test

Weight: 30%

Marked out of: 35

Duration: 60 minutes

Exam Type: Closed Book with Notes

Exam Format: Online (Non-ProctorU)

Task Description:

The 60 min test will be carried out during Tuesday morning (11:00 - 12:00 pm) in Week 11. The test will consist of multiple-choice and short answer questions. The Week 11 test will cover material presented in the lectures 12 - 20. The purpose of the test is to evaluate knowledge acquisition, statistical reasoning and comprehension of the conceptual bases of statistical analysis. Any formulae required in the test will be provided on the test paper and, where required, students may use a scientific calculator to calculate answers.

Criteria & Marking:

Marks, as specified on test, will be given for correct answers.

This assessment item:

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: Computer Skills Test (week 12)

Type: Test or quiz

Learning Outcomes Assessed: 1, 5

Due Date:

9 Oct 23 - 11 Oct 23

Weight: 15%

Marked out of: 15

Task Description:

A 50 min test of computer skills will be given in the usual computer class times, during **Week 12**. The test will assess skills for using Excel to perform statistical analyses. The skills tested will be derived from the online computer laboratory classes in the weeks preceding the tests. The test accounts for 15% of the total course marks. The test will involve using Excel to perform a statistical analysis and then answering online, multiple choice questions based on the analysis.

Criteria & Marking:

Marks will be given for correctly answering multiple choice questions based on statistical analyses performed using Excel.

This assessment item:

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

5.3 Late Submission

For all courses (other than Honours Dissertation Courses): Refer to the [Assessment Procedure for Students](#).

For all Honours Dissertation courses: Enrolment in an Honours degree shall be cancelled and the candidature terminated if the candidate fails to lodge their Honours dissertation by the prescribed date including any approved extensions.

5.4 Other Assessment Information

Supplementary Assessment is available in this course.

Supplementary assessment may be awarded if you have submitted all the assessment requirements of the course, and you have received a grade of 3 or have achieved an overall percentage equivalent to the grade of 3 or higher, but you have not achieved a pass or the required minimum mark in one or more mandatory pass components of the course.

You are allowed one attempt at a supplementary assessment item per course per trimester. If you gain a pass mark for your supplementary assessment item, you will be awarded a grade of 4.

Where you do not achieve a pass mark for the supplementary assessment item, the original grade of 3 for the course will remain, except for courses using the Medical School grading basis where a non-graded fail (NGF) is awarded.

Please see the [Assessment Procedure for Students](#) for more information.

Final Grades

A student's final grade for this course will be based on the aggregation and weighting of marks across assessment, any mandatory pass components and grade cut-offs. Grade cut-offs can vary, so you will need to wait for the official release of grades to be sure of your grade for this course.

- This course is a graded course (i.e 7, 6, 5, 4, 3, 2, 1).

6. Policies & Guidelines

This section contains the details of and links to the most relevant policies and course guidelines. For further details on University Policies please visit the [Policy Library](#)

6.1 Assessment Related Policies and Guidelines

University Policies & Guidelines

The University's policies can be found in the [Griffith Policy Library](#).

Specific assessment policies include:

- [Assessment Policy](#)
- [Assessment Procedure for Students](#)

SHS School of Health Sciences and Social Work

Assessment Guidelines

The American Psychological Association Referencing Style (7th Edition) [APA 7] is the preferred standard for this course.

6.2 Other Policies and Guidelines

University Policies and Guidelines

Students are responsible for ensuring that they have read all sections of the Course Profile for the course/s in which they are enrolled in any enrolment period. The published online version of the Course Profile is the authoritative version and by the publication of the Course Profile online, the University deems the student has been notified of and read the course requirements. Variations to the Course Profile during the trimester of offer are not permitted except in exceptional circumstances and will be advised in writing to all enrolled students and via the Learning@Griffith website. Additional information regarding the content of this course may be published on the Learning@Griffith website.

Copyright matters

Copyright applies to all teaching materials and materials generated by students which substantially relate to Griffith University courses. *Students are warned against selling Griffith University teaching materials and their student notes online through commercial websites during and after their studies.* You will almost certainly be in breach of copyright law and Griffith's IT Code of Practice if you post these materials on the internet and commercial websites. Please refer to the [Copyright Guide for Students](#) for further information.

Health and Safety

Griffith University is committed to providing a safe work and study environment. However, all students, staff and visitors have an obligation to ensure the safety of themselves and those whose safety may be affected by their actions. Staff in control of learning activities will ensure as far as reasonably practical, that those activities are safe and that all safety obligations are being met. Students are required to comply with all safety instructions and are requested to report safety concerns to the University. General health and safety information is available on the [Health, Safety and Wellbeing](#) website.

Other Key Student-Related Policies

All University policy documents are accessible to students via the [Griffith Policy Library](#). Links to key policy documents, in addition to those listed in 6.1 above, are included below for easy reference:

- [Student Communications Policy](#)
- [Health, Safety and Wellbeing Policy](#)
- [Student Administration Policy](#)
- [Student Charter](#)
- [Student Review and Appeals Policy](#)
- [Student Review and Appeals Procedures](#)
- [Student Complaints Policy](#)
- [Students with Disabilities Policy](#)

Other Course Guidelines

N/A

Learning Summary

Below is a table showing the relationship between the learning outcomes for this course, the learning activities used to develop each outcome and the assessment task used to assess each outcome.

Learning Outcomes

After successfully completing this course you should be able to:

- 1 Describe the primary types, applications, and limitations of qualitative and quantitative research study designs.
- 2 Use research databases to access peer-reviewed scientific literature, conduct searches to identify relevant information, and appropriately interpret and cite the research of others.
- 3 Appraise research methods and statistical results to understand methodological and ethical aspects of research.
- 4 Design an experiment to address a specific hypothesis while minimising the influences of confounding variables.
- 5 Understand and apply statistical analysis techniques appropriate to exercise science sub-disciplines and interpret results.

Assessment & Learning Activities

LEARNING ACTIVITIES	LEARNING OUTCOMES				
	1	2	3	4	5
Lecture 1 (Lecture)	●				
Lecture 2 (Lecture)	●		●		●
Lecture 3 (Lecture)	●		●		●
Lecture 4 (Lecture)	●		●		●
Computer Lab 1 (Laboratory)					●
Lecture 5 (Lecture)	●		●		●
Computer Lab 2 (Laboratory)					●

LEARNING ACTIVITIES	LEARNING OUTCOMES				
	1	2	3	4	5
Lecture 6 (Lecture)	●		●		●
Computer Lab 3 (Laboratory)	●	●	●	●	●
Lecture 7 (Lecture)	●		●		
Lecture 8 (Lecture)	●		●		●
Lecture 9 (Lecture)	●		●		●
Lecture 10 (Lecture)	●		●		●
Lecture 11 (Lecture)	●		●		●
Computer Lab 4 (Laboratory)					●
Test 1: (Test)					
Lecture 12 (Lecture)	●		●		●
Lecture 13 (Lecture)	●		●		●
Computer Lab 5 (Laboratory)	●	●	●	●	●
Lecture 14 (Lecture)	●		●		●
Computer Lab 6 (Laboratory)					●
Lecture 15 (Lecture)	●		●		●
Lecture 16 (Lecture)	●		●		●
Computer Lab 7 (Laboratory)					●
Lecture 17 (Lecture)	●		●		●
Lecture 18 (Lecture)	●		●		●
Lecture 19 (Lecture)	●		●		
Research project due (Assessment)					
Lecture 20 (Lecture)	●		●		●
Computer Lab 8 (Laboratory)					●

LEARNING ACTIVITIES	LEARNING OUTCOMES				
	1	2	3	4	5
Test 2 (Test)					
Industry-Focused Lecture (Lecture)	●		●		●
Computer skills test (Laboratory)					
ASSESSMENT TASKS					
Test 1 (Week 6)	●		●		●
Research project assessment (Week 10)	●	●	●	●	●
Test 2 (Week 11)	●		●		●
Computer Skills Test (week 12)	●				●

Graduate Attributes

For further details on the Griffith Graduate please [click here](#)

Griffith University prepares influential graduates to be:

- [Knowledgeable and skilled, with critical judgement](#)
- [Effective communicators and collaborators](#)
- [Innovative, creative and entrepreneurial](#)
- [Socially responsible and engaged in their communities](#)
- [Culturally capable when working with First Australians](#)
- [Effective in culturally diverse and international environments](#)

This table demonstrates where each of the Griffith Graduate Attributes is taught, practised and assessed in this course.

University wide attributes

GRADUATE ATTRIBUTE	TAUGHT	PRACTISED	ASSESSED
Knowledgeable and skilled, with critical judgement	•	•	•
Effective communicators and collaborators	•	•	•
Innovative, creative and entrepreneurial	•	•	•
Socially responsible and engaged in their communities	•		
Culturally capable when working with First Australians			
Effective in culturally diverse and international environments			