



*MISSION: To develop a unique business school identity which is distinctive in the marketplace and provides a clear value proposition for students. This will be achieved by embedding the themes of entrepreneurship and innovation, digitalisation and data within our programs and embracing sustainability, work integrated learning and a commitment to social justice.*

## OVERVIEW

<b>Course Description</b>	Quantitative techniques are frequently employed as essential research and analytical tools in accounting, financial and economic environments. This course provides an understanding of the quantitative techniques that are frequently used in accounting, financial and economic studies to aid business decision making. Statistical techniques such as data screening and descriptive techniques, inferential statistics, sampling, questionnaire and research design, hypothesis testing, analysis of variance and regression analysis are covered. Use is made of Microsoft Excel statistical package to analyse data sets and produce reports based on quantitative analyses. Participants will build increased competency in business communication skills and techniques.
<b>Contact Hours</b>	<b>Workshop:</b> Face to face on campus for two (2) hours per week for 12 weeks starting week 1.  <b>Self-Directed Learning:</b> Six (6) hours of online content per term provided for self-directed learning.
<b>Unit Weighting</b>	10 units
<b>Requisites</b>	This course is only available to students enrolled in the Master of Professional Accounting, Master of Professional Accounting (Advanced), Master of Professional Accounting / Master of Business and M Prof Acct/M Bus Admin programs.
<b>Workload</b>	Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.
<b>Please refer to the course CANVAS site for details of teaching staff for ALL course offerings. The primary contact for courses is the Course Coordinator, whose details are on the course CANVAS site.</b>	
<b>Student Consultation</b>	A minimum of one (1) hour of consultation per week. Please see course CANVAS site for details on time and location.
<b>Course Learning Outcomes</b>	<b>On successful completion of this course, students will be able to:</b> <ol style="list-style-type: none"><li>1. Demonstrate an understanding of quantitative techniques that are frequently used in accounting and financial studies research;</li><li>2. Design a quantitative study;</li><li>3. Exhibit an awareness of the principles of hypothesis testing;</li><li>4. Demonstrate an understanding of appropriate analytical strategies to test specific hypothesis;</li><li>5. Use Microsoft Excel to conduct statistical analysis; and</li><li>6. Report statistical findings in a clear and concise fashion.</li></ol>

# COURSE OUTLINE

# ASSESSMENTS

This course has 3 assessments. Each assessment is described in more detail in the sections below:

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Statistics Assignment	Week 7	Individual	20%	1, 2, 4, 5, 6
2	Group Research Project	Week 11	Group	30%	1, 2, 3, 4, 5, 6
3	Final Examination	Formal Examination Period	Individual	50%	1, 3, 4, 6

**Please note:** students are advised that ALL assessments must be submitted in English. Assessments not submitted in English will receive a mark of zero.

Results of individual assessment items and final results, including those provided via the Learning Management System (LMS) are 'unofficial results' until they are confirmed as finalised by the School Assessment Body and the Head of School or delegate. Finalised results are released directly to students on the Fully Graded Date of the relevant Semester/Trimester.

## Time referenced is time in Newcastle NSW

<b>Late Submissions</b>	The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. <b>Note:</b> this applies equally to week and weekend days.
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### Assessment 1 – Individual Statistics Assignment

<b>Assessment Type</b>	Written Assignment
<b>Purpose</b>	The purpose of this assignment is to assess participants' ability to identify and apply appropriate analytical techniques to test hypotheses with data supplied and report the findings.
<b>Description</b>	Students will be required to present a brief summary of their findings in a manner suitable to those who do not have a background in statistics.
<b>Weighting</b>	20%
<b>Length</b>	1000 words
<b>Due Date</b>	In Class – Week 7
<b>Submission Method</b>	Online – via Turnitin
<b>Assessment Criteria</b>	The following criteria will be used: <ul style="list-style-type: none"> <li>– Relevance to the question.</li> <li>– Accuracy of information/argument.</li> <li>– Clarity of expression.</li> </ul>
<b>Return Method</b>	In Class
<b>Feedback Provided</b>	Returned Work

### Assessment 2 - Group Research Project

<b>Assessment Type</b>	Project
<b>Purpose</b>	The purpose of this group assessment task is to develop a students' interactive working techniques in order to enhance student understanding of course content.
<b>Description</b>	The project is a major piece of assessment task in this course. The group discussion is intended to increase awareness and understanding of the nature and significance of strategic behaviour of firms within a changing global environment through knowledge gained from undertaking a survey; reading the textbook and supplementary materials, lecture notes; and materials gathered on the subject by group members and peer discussions.
<b>Weighting</b>	30%
<b>Length</b>	2000 words
<b>Due Date</b>	In Class – Week 11
<b>Submission Method</b>	Online via Turnitin (with coversheet) In Class – Hard copy
<b>Assessment Criteria</b>	The criterion to be used in assessing the project may include the following: <ul style="list-style-type: none"> <li>• ability to apply the conceptual and theoretical frameworks developed in the course; demonstrate familiarity with set readings</li> </ul>

- evidence of critical reflection
- evidence of evaluation and judgment
- evidence of the ability to apply knowledge to a practical situation
- demonstrate ability to discuss and/or debate issues
- ability to write clearly and concisely

A detailed marking rubric will be placed in CANVAS under the Assessment tab.

**Return Method**

In Class

**Feedback Provided**

Returned Work

## Assessment 3 - Final Examination

**Assessment Type**

Formal Examination

**Purpose**

This assessment is to assess participants' knowledge of the specific issues pertaining to quantitative research technics covered in the course.

**Description**

Students demonstrate their understanding of quantitative techniques that are frequently used in accounting and financial studies research. They apply analytical problem-solving skills responding to a variety of questions.

This course has a **RESTRICTED OPEN BOOK** examination. A memory aid is permitted. The memory aid is a single double sided A4 sheet of handwritten or typed notes for use during the examination. Note: memory aids must be left on the examination table and cannot be removed from the examination venue.

**Weighting**

50%

**Length**

120 minutes

**Due Date**

Formal Examination Period

**Submission Method**

Formal Exam

**Assessment Criteria**

The following three (3) criteria will be used:

- Relevance to the question.
- Accuracy of information/argument.
- Clarity of expression

**Return Method**

Not Returned

**Feedback Provided**

No Feedback. Examination scripts will not be returned to students. Final examination scripts will be made available for review by students, upon request, in a controlled and monitored setting. Students are required to make requests, directly to the relevant course coordinator. Completed examination scripts are kept by the Newcastle Business School for a period of six (6) months only, from the relevant fully graded date. Requests made after the six (6) month period **cannot** be considered.

# SYLLABUS

**Course Content**

**Topics in the course include but are not limited to the following:**

1. Data screening and descriptive techniques
2. Inferential statistics
3. Sampling
4. Questionnaire design
5. Research design
6. Hypothesis testing
7. Analysis of variance
8. Regression analysis

**Course Materials**

**Required Text:**

Jaggia, S. and Kelly, A (2021) *Business Statistics: Communicating with Numbers*, 4<sup>th</sup> Edition. Australia: McGraw Hill.

**ISBN:** 9781260597561

Francis, G. and Garing, A. (2015) *Foundations of Statistics*, 4<sup>th</sup>. Australia: Pearson.

**See E-Book link:** <http://bit.ly/3Y8kIPt>

Please refer to the course CANVAS site for details of additional recommended texts.

# SCHEDULE

Week	Topic	Workshop Activities	Assessment Due
1	Quantitative Data and Business Decision Research	Jaggia and Kelly (Chapter 1)	
2	Descriptive Statistics	Jaggia and Kelly (Chapter 2 & 3)	
3	Sampling and Sampling Distributions	Jaggia and Kelly (Chapter 7)	<b>Group Formation Finalisation</b>
4	Hypothesis Testing	To be distributed in class	
5	Research Design	To be distributed in class	
6	Two Samples T- Tests	Francis & Garing (Module 5 & 6) Jaggia and Kelly (Chapter 10)	
7	Analysis of Variance (ANOVA)	To be distributed in class	<b>Assessment 1:</b> Individual Assessment due
8	Chi-square Tests	Francis & Garing (Module 8)	
9	Correlation, Simple Linear Regression Analysis	Francis & Garing (Module 7) Jaggia and Kelly (Chapter 14)	
10	Multiple Linear Regression Analysis	To be distributed in class	
11	Group Project Presentation Course Review	To be distributed in class	<b>Assessment 2:</b> Group Projects due
12	Forecasting with Time Series Data Revision	Jaggia and Kelly (Chapter 18)	

**If a lecture/class is scheduled on a public holiday, a make-up lecture may be announced by the course coordinator on the course CANVAS site.**

# CONTACTS

## School Office **Newcastle Business School – Callaghan, Newcastle City & Online**

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## **PSB Academy Enquiries**

Log your question or request to the PSB Program Executives at the following website:  
<http://www.psb-academy.edu.sg/eng>  
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## **Newcastle Australia Institute of Higher Education Pte Ltd**

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# ADDITIONAL INFORMATION

## Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

\*Skills are those identified for the purposes of assessment task(s).

<b>Communication Methods</b>	Communication methods used in this course include: <ul style="list-style-type: none"> <li>- CANVAS Course Site: Students will receive communications via the posting of content or announcements on the CANVAS course site.</li> <li>- Email: Students will receive communications via their student email account.</li> <li>- Face to Face: Communication will be provided via face to face meetings or supervision.</li> </ul>
<b>Course Evaluation</b>	Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.
<b>Oral Interviews (Vivas)</b>	As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the <a href="#">Oral Examination (viva) Procedure</a> . In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the <a href="#">Student Conduct Rule</a> .
<b>Academic Misconduct</b>	All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <a href="https://policies.newcastle.edu.au/document/view-current.php?id=35">https://policies.newcastle.edu.au/document/view-current.php?id=35</a> .
<b>Adverse Circumstances</b>	The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where: <ol style="list-style-type: none"> <li>1. the assessment item is a major assessment item; or</li> <li>2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;</li> <li>3. you are requesting a change of placement; or</li> <li>4. the course has a compulsory attendance requirement.</li> </ol> Before applying you must refer to the Adverse Circumstances Affecting Assessment Items Procedure available at: <a href="https://policies.newcastle.edu.au/document/view-current.php?id=236">https://policies.newcastle.edu.au/document/view-current.php?id=236</a>
<b>Important Policy Information</b>	The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at <a href="https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures">https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures</a> that support a safe and respectful environment at the University.

*This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.*

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