

STAT1060: Business Decision Making

Ourimbah and Newcastle City Precinct
Semester 1 – 2024



OVERVIEW

Course Description

STAT1060 is an introductory course in qualitative and quantitative methods which underpin effective business decision making. It is taught within a business context having been designed for undergraduate students in the College of Human and Social Futures. The course develops a student's ability to incorporate statistical thinking and to take account of variation in the real world during processes of establishing project initiatives, defining objectives, data collection, data presentation, data analysis, reporting and decision making.

Interested in studying further statistics courses to develop your skills and improve your employability? Information about available statistics courses can be found here: <https://www.newcastle.edu.au/school/mathematical-and-physical-sciences/study/statistics-courses>

Assumed Knowledge Contact Hours

Basic numeracy and literacy.

Ourimbah and Newcastle City Precinct

Workshop *

Face to Face On Campus
2 hour(s) per Week (Weeks 1-12)

Lecture

Zoom Online via Canvas
2 hour(s) per Week for Full Term starting Week 1 (Weeks 1-13)

Unit Weighting Workload

* This contact type has a compulsory requirement.
10

Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

COURSE OUTLINE

CONTACTS

Course Coordinator

Week 1-4

Ms Kirsty Richards
STAT1060@newcastle.edu.au
(02) 4033 9574
Consultation: TBA

Week 5-13 Ourimbah

Dr Ian Renner
STAT1060@newcastle.edu.au
(02) 4921 5547
Consultation: TBA

Week 5-13 Newcastle

Dr Liz Stojanovski
STAT1060@newcastle.edu.au
(02) 4921 5346
Consultation: TBA

Teaching Staff

Other teaching staff will be advised on the course Canvas site.

School Office

School of Information and Physical Sciences

SR233, Social Sciences Building
Callaghan
CESE-SIPS-Admin@newcastle.edu.au
+61 2 4921 5513
9am-5pm (Mon-Fri)

SYLLABUS

Course Content

The process of problem solving and decision making in business including:

- Qualitative techniques for data collection and investigation;
- Research process;
- The concept of variation;
- Quantitative and exploratory data techniques;
- Presenting data;
- Descriptive and Inferential Statistics;
- Data types in quantitative analysis;
- Developing hypotheses;
- Sampling distributions;
- Assessing risk;
- Quantifying and incorporating variation in decision making;
- Confidence intervals;
- Hypothesis testing;
- Presentation of findings;
- Correlation and regression;
- Time Series.

Course Learning Outcomes

On successful completion of this course, students will be able to:

1. Describe and implement a structured approach to problem solving and decision making in business
2. Explain why data and the understanding of variation are important in making business decisions
3. Explain various qualitative techniques fundamental to the decision making process
4. Explain and apply basic statistical concepts and techniques

5. Identify and use appropriate data collection and analysis techniques
6. Identify flaws in data collection techniques and discuss approaches to reducing error
7. Interpret and present data in a form that makes information accessible for decision-makers

Course Materials

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Contact Hour Requirements:

- Workshop There is a compulsory attendance requirement in this course. Students must attend at least 80% of workshops.

ASSESSMENTS

This course has 5 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Assignment 1	Before 11.59pm Sunday of Week 6	Individual	15%	1, 3, 4, 5, 6, 7
2	Assignment 2	Before 11.59pm Sunday of Week 12	Individual	15%	1, 4, 5, 6, 7
3	Final exam	Semester 1 Examination Period	Individual	50%	1, 2, 3, 4, 5, 6, 7
4	Online Quizzes	Before 11:59pm Sunday of Weeks 3, 5, 7, 9, 11, 13	Individual	20%	3, 4, 5, 7

Late Submissions

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. Note: this applies equally to week and weekend days.

Assessment 1 - Assignment 1

Assessment Type	Written Assignment
Description	The assignments meet the course objectives of knowledge acquisition and demonstrated assimilation of data, upon reflection and analysis, to apply appropriate statistical methods to given problems and scenarios. They are designed to enable students to apply skills, developed in the labs based on content in the lectures, which will be used throughout their program and careers.
Weighting	15%
Due Date	Before 11.59pm Sunday of Week 6
Submission Method	Online
Assessment Criteria	Detailed assessment criteria for each assessment task and any additional material will be available on the course UoNline site no less than two weeks prior to the due date of each assessment.
Return Method	Online
Feedback Provided	Online - Students WILL NOT be given the opportunity to reattempt this assessment

Assessment 2 - Assignment 2

Assessment Type	Written Assignment
------------------------	--------------------

Description	The assignments meet the course objectives of knowledge acquisition and demonstrated assimilation of data, upon reflection and analysis, to apply appropriate statistical methods to given problems and scenarios. They are designed to enable students to apply skills, developed in the labs based on content in the lectures, which will be used throughout their program and careers.
Weighting	15%
Due Date	Before 11.59pm Sunday of Week 12
Submission Method	Online
Assessment Criteria	Detailed assessment criteria for each assessment task and any additional material will be available on the course UoNline site no less than two weeks prior to the due date of each assessment.
Return Method	Online
Feedback Provided	Online - Students WILL NOT be given the opportunity to reattempt this assessment

Assessment 3 - Final exam

Assessment Type	Formal Examination
Description	<p>The final formal examination is designed to test the individual student's knowledge of the course material, including their understanding of qualitative methods and ability to apply basic and more advanced statistical techniques, interpret excel output. Marks are awarded in accordance with Table 1 from the Grading Scales in the 2014 Course Management and Assessment Procedure Manual (Policy 000996) at http://www.newcastle.edu.au/policy/000996.html.</p> <p>The final examination will be held during the examination period. Note that all lecture and lab content presented in this course is to be considered examinable. Non-programmable scientific calculators are permitted into the exam. Students will be permitted to bring into the examination a single A4-sized double-sided piece of paper with hand-written notes.</p>
Weighting	50%
Due Date	Semester 1 Examination Period
Submission Method	Formal Exam Formal Sit-down Exam - submitted at end of exam
Assessment Criteria	Detailed assessment criteria for each assessment task and any additional material will be available on the course UoNline site no less than two weeks prior to the due date of each assessment.
Return Method	Not Returned
Feedback Provided	No Feedback - Students WILL NOT be given the opportunity to reattempt this assessment.

Assessment 4 - Online Quizzes

Assessment Type	Quiz
Description	<p>The six fortnightly quizzes are designed to test fortnightly lecture and lab materials and help students maintain engagement with the course whilst achieving marks towards final grade. The online nature of the quizzes facilitates timely feedback on student learning; this, coupled with the regularity of testing, enables students to self-assess their methods of studying and learning the course materials, and adjust practices as necessary in preparation for future quizzes and assessments.</p> <p>The quizzes highlight any areas where students may require further development or new approaches to learning which should stimulate discussion with tutors and lecturers. An individual student's best 5 scores across the 6 quizzes will be used to obtain a final score which contributes 20% to the course. Thus each quiz is effectively worth 4% of the course grade.</p> <p>These will open 9am Monday and close Midnight Sunday of the week the online quiz is due. Late submissions (attempts) are not permissible. It is strongly recommended that students:</p> <ol style="list-style-type: none">attempt the non-assessable sample questions prior to attempting the quiz; sample questions will be available from 9am Monday of the week the quiz is due;review the week's lab solutions prior to attempting the quiz; lab solutions will be available from 9pm Thursday of the week of the lab.review lecture materials and other supporting resources prior to attempting the quiz.
Weighting	20%
Due Date	Before 11:59pm Sunday of Weeks 3, 5, 7, 9, 11, 13
Submission Method	Online
Assessment Criteria	Detailed assessment criteria for each assessment task and any additional material will be available on the course UoNline site no less than two weeks prior to the due date of each assessment.
Return Method	Online
Feedback Provided	Online - . Students WILL NOT be given the opportunity to reattempt this assessment.

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).

Communication Methods	Communication methods used in this course include: Email
Course Evaluation	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.
Oral Interviews (Vivas)	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 Oral Examination (viva) Procedure . 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 Student Conduct Rule .
Academic Misconduct	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 https://policies.newcastle.edu.au/document/view-current.php?id=35 .
Adverse Circumstances	<p>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:</p> <ol style="list-style-type: none">1. the assessment item is a major assessment item; or2. 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;3. you are requesting a change of placement; or4. the course has a compulsory attendance requirement. <p>Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at: https://policies.newcastle.edu.au/document/view-current.php?id=236</p>
Important Policy Information	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 https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures 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.

© 2024 The University of Newcastle, Australia