

School of Accounting and Commercial Law

MMPA 507 STATISTICS

Trimester 2, 2016

COURSE OUTLINE

Prescription

Statistical techniques useful in accounting research or practice.

Course Learning Objectives

Students who are successful in this course will be able to:

- (a) Understand the potential for statistical data analyses to contribute towards business management decisions;
- (b) Apply the results of statistical data analyses in business applications, including planning, forecasting, decision-making, controlling, and reporting;
- (c) Describe data using graphs;
- (d) Summarise data using numerical measures;
- (e) Analyse data using a variety of inferential analysis techniques including probability rules, sampling distributions of a mean and a proportion, confidence intervals for a single mean and proportion;
- (f) Describe and analyse data using a variety of bi-variate analysis techniques including correlation and linear regression;
- (g) Demonstrate an understanding of basic data collection methods.

Course Content

This course covers statistical techniques useful in business research or practice. The schedule on the last page of this course outline and indicates the topics we shall be covering, the order of coverage, and the approximate timing. Note that we will be working through the entire Clark & Randal textbook so it is recommended to start reading the text early and remain ahead of the schedule.

| The course is divided into three main sections: | Course Learning Objectives Covered: |
|--|--|
| (i) descriptive statistics (chapters 2-5) | (a)-(d) and (g) |
| (ii) probability and sampling (chapters 6-8) | (a)-(f) |
| (iii) inference (chapters 9-13) | (a)-(f) |

Trimester Dates

Teaching Period: Monday 11th July – Friday 14th October

Study Period: Monday 17th October – Thursday 20th October

Examination Period: Friday 21st October – Saturday 12th November (inclusive)

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 22nd July 2016.
2. The standard last date for withdrawal from this course is Friday 23rd September 2016. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an 'Application for Associate Dean's Permission to Withdraw Late' including supporting documentation. The application form is available from either of the Faculty's Student Customer Service Desks or [online](#).

Names and Contact Details

| | | | |
|--|---|--------|--------------------|
| <i>Course Coordinator & Lecturer</i> | Nathaniel Robson nathaniel.robson@vuw.ac.nz Office Hours: Tuesday 2.00 pm – 4.00 pm (or by appointment) | TBA | Email is preferred |
| <i>Course Administrator</i> | Rebekah Sage rebekah.sage@vuw.ac.nz Office hours: Monday-Friday, 8.30 am-5.00 pm | RH 728 | 463 6921 |

Class Times and Room Numbers

Thursdays: 12.40 – 3.30pm
Venue: GB LT 3 (Government Building Lecture Theatre 3), Pipitea Campus

Course Delivery

The course will consist of lectures, two assignments, one test, and a final examination that focuses on solving problems similar to those in the assignments. Assignments are designed to help students master the course material through practice and also to aid in preparation for the test and exam. Formal lecture time will be used to explain all key statistical ideas, as well as providing examples of their application. Part of the scheduled lecture time will be devoted to an informal tutorial style discussion of problems appearing in the assignments, test, and textbook exercises as well as demonstrating the use of Excel. Solutions to the assignments and test will be provided.

Readings

The prescribed text for this course is: Clark, M. & Randal, J., *A First Course in Applied Statistics*, 2nd edition, Pearson, 2011, which is available in the library as well as in the Victoria book store at the Pipitea Campus. Since we shall be covering the entire text in this course, it is vital to have convenient access to this text.

Mandatory course requirements

In addition to achieving an overall pass mark of at least 50%, students must obtain a minimum of 40% on each individual piece of assessment.

If you believe that exceptional circumstances may prevent you from meeting the mandatory course requirements, contact the Course Coordinator for advice as soon as possible.

If you cannot complete an assignment or sit a test or examination, refer to www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat

Expected Workload

This course is a 15-point course. One point is equated to 10 hours of work, which means a total of 150 hours is expected for this course, spread over the 12 teaching weeks, mid-trimester break, study week and the examination period. This involves attending the lectures and tutorials every week, completing all assignments, and preparations for all examinations.

Assessment

The Assessment Handbook will apply to all VUW courses: see

<http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>.

| Item | Specifications | % | Date | Course Learning Objectives |
|--------------|----------------------|-----|--------------------------------|----------------------------|
| Assignment 1 | Chapters 2-7. | 15% | Due: Friday 19 August by 4pm | (a),(b),(c),(d),(g) |
| Test | 50 mins, closed book | 15% | Thursday 8 Sep at 12.40pm | (a)-(g) |
| Assignment 2 | Chapters 9-12. | 15% | Due: Friday 14 October by 4pm | (a)-(g) |
| Exam | 2 hours, closed book | 55% | TBA (see 'Examinations' below) | (a)-(g) |

- **Assignment 1** is due by **4pm on Friday 19 August** and will need to be completed using Excel. Your entire assignment must be submitted by email to nathaniel.robson@vuw.ac.nz. Solutions to Assignment 1 will be provided.
- **The Test** will be held on **Thursday 8 September** in class (50 minutes) and will cover all material up to and including week 6: lectures, text readings, and Assignment 1.
- **Assignment 2** is due by **4pm on Friday 14 October** and will need to be completed using Excel. Your entire assignment must be submitted by email to nathaniel.robson@vuw.ac.nz. Solutions to Assignment 2 will be provided.
- **The Final Examination** is a 120 minute comprehensive exam focussing on the material covered from weeks 7 to 12. Note however that **all** material covered throughout the course in the lectures, text readings, test and assignments is potentially examinable.
- **A brief quiz** will be conducted at the beginning of each lecture as a review of the previous week's material. While these quizzes carry no weight for assessment, student answers will be collected and retained as evidence of class participation and progress towards learning objectives.

Examinations

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period. The final examination for this course will be scheduled at some time during the following period:

Friday 21st October – Saturday 12th November (inclusive)

Penalties

• Assignments

In fairness to other students, any assignment submitted after the deadline will be subject to a penalty of 5% of the total marks available for every day or part of a day (including Saturdays and Sundays) that the assignment is submitted late. For example, an assignment marked out of 100

due by 2pm on Monday 1 January but submitted at 1pm on Wednesday 3 January, would be marked out of 100 and then have 10 marks deducted from the marks awarded. No marks will be awarded to any assignment submitted after the assignment has been discussed in class or marked and returned to other students or after 10 days have elapsed, whichever occurs first.

An extension or waiver (with no penalty) will be considered on the grounds of exceptional personal circumstances. Students must complete the 'Assignment Extension/Waiver Application Form' available on Blackboard and submit the form (with the relevant supporting documentation) to the MPA Administrator, preferably before the assignment due date.

Note: The submission of an application does not mean that the extension has been approved. Penalties, as detailed above, will apply if the extension is not granted.

- **Tests**

Unjustifiable absence from a test will result in a mark of 'zero' for that test and may result in a student not meeting the mandatory course requirements.

Students unable to take scheduled tests due to exceptional circumstances, must complete the 'Consideration of Exceptional Personal Circumstances for Tests Application Form' available on Blackboard. Submit this form to the MPA Administrator as early as possible, preferably before the test date.

Note: The submission of an application does not mean that the test requirement has been changed or waived. Penalties, as detailed above, will apply if it is not successful.

Exceptional Personal Circumstances include an impairment assessed by Disability Services, illness, bereavement, circumstances involving the health or wellbeing of a relative or close friend, compulsory attendance at court, national or international representative commitments, significant cultural commitments, or activities in which the student is representing the University.

*Note: Not being organised or failing to plan ahead are **not** exceptional circumstances.*

Group Work

Collaboration on individual assignments is not allowed beyond general discussion as to the nature of the assignment question. Please do not work together to produce any written work and do not loan out your completed assignments.

Use of Turnitin

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and submitted to Turnitin. A copy of submitted materials will be retained on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

Materials and Equipment

The completion of assignments will require the use of Excel. Students will be permitted to use non-programmable calculators or silent programmable calculators with their memories cleared during the test and exam. Any formulae and tables needed for the test or exam will be provided. Lecture slides and solutions to the test and assignments will be posted on Blackboard.

Student feedback

Student feedback received in previous trimesters indicates that, while students found this course challenging, preparing for the assessments was very beneficial to their learning.

Student feedback on University courses may be found at www.cad.vuw.ac.nz/feedback/feedback_display.php.

Class Representative

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the course coordinator and the class. The class representative provides a communication channel to liaise with the course coordinator on behalf of students.

Communication of Additional Information

Additional information concerning this course will be provided in lectures and posted on Blackboard: <http://blackboard.vuw.ac.nz>. Urgent notices will be circulated by email.

Link to general information

For general information about course-related matters, go to <http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>

Note to Students

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

| Week | Date | Topic | Readings |
|--|---------------|--|-----------------|
| 1 | 14 Jul | Univariate Descriptive Statistics. | Chapters 2, 3. |
| 2 | 21 Jul | Bivariate Descriptive Statistics. | Chapter 4. |
| 3 | 28 Jul | Time Series Descriptive Statistics. | Chapter 5. |
| 4 | 4 Aug | Probability Foundations Of Sampling. | Chapter 6. |
| 5 | 11 Aug | The Binomial Distribution And Sampling Distributions. | Chapter 7. |
| 6 | 18 Aug | The Normal Distribution, The Central Limit Theorem And Sampling Distributions. | Chapter 8. |
| | 19 Aug | Assignment 1 due by 4pm on Friday 19 August | |
| Mid-Trimester Break (Monday 22 August - Sunday 4 September) | | | |
| 7 | 8 Sep | Test (in class) | |
| | | Sampling Distributions And Inference: Generalities. | Chapter 9. |
| 8 | 15 Sep | Inference For One Population. | Chapter 9. |
| 9 | 22 Sep | Inference For Two Populations. | Chapter 10. |
| 10 | 29 Sep | Inference For Many Populations. | Chapter 11. |
| 11 | 6 Oct | Inference For Categorical Data. | Chapter 12. |
| 12 | 13 Oct | Inference For Linear Regression Models. | Chapter 13. |
| | 14 Oct | Assignment 2 due by 4pm on Friday 14 October | |
