

School of Accounting and Commercial Law

## MMPA 507 STATISTICS

Trimester 2, 2015

### COURSE OUTLINE

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#### **Names and Contact Details**

		<b>Office</b>	
<i>Course Coordinator &amp; Lecturer</i>	Nathaniel Robson <a href="mailto:nathaniel.robson@vuw.ac.nz">nathaniel.robson@vuw.ac.nz</a> Office Hours: Monday 2.00 pm – 5.00 pm (or by appointment)	RH 210	Email is preferred
<i>Course Administrator</i>	Rebekah Sage <a href="mailto:rebekah.sage@vuw.ac.nz">rebekah.sage@vuw.ac.nz</a> Office hours: Monday-Friday, 8.30 am-5.00 pm	RH 728	463 6921

#### **Trimester Dates**

Teaching Period: Monday 13<sup>th</sup> July – Friday 16<sup>th</sup> October

Study Period: Monday 19<sup>th</sup> October – Thursday 22<sup>nd</sup> October

Examination Period: Friday 23<sup>rd</sup> October – Saturday 14<sup>th</sup> November (inclusive)

#### **Withdrawal from Course**

1. Your fees will be refunded if you withdraw from this course on or before Friday 24<sup>th</sup> July 2015.
2. The standard last date for withdrawal from this course is Friday 25<sup>th</sup> September. 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*’ form including supporting documentation. The application form is available from either of the Faculty’s Student Customer Service Desks or [online](#).

#### **Class Times and Room Numbers**

Thursdays: 12.40 – 3.30pm

Venue: RH LT 3 (Rutherford House 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.

### **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.

### **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 exams.

### **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)

## Readings

### **Required Material**

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 (ground floor of Rutherford House 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.

### 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.

### 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: Tuesday 18 Aug by 4pm	(a),(b),(c),(d),(g)
Test	50 mins, closed book	15%	Thursday 10 Sept at 12.40pm	(a)-(g)
Assignment 2	Chapters 9-12.	15%	Due: Friday 16 Oct by 4pm	(a)-(g)
Exam	2 hours, closed book	55%	TBA (see 'Examinations' below)	(a)-(g)

- **Assignment 1** is due by **4pm** on **Tuesday 18 August** and will need to be completed using Excel. Your entire assignment must be submitted by email to [nathaniel.robson@vuw.ac.nz](mailto:nathaniel.robson@vuw.ac.nz). Solutions to Assignment 1 will be provided. **No late submissions will be accepted.**
- **The Test** will be held on **Thursday 10 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 16 October** and will need to be completed using Excel. Your entire assignment must be submitted by email to [nathaniel.robson@vuw.ac.nz](mailto:nathaniel.robson@vuw.ac.nz). Solutions to Assignment 2 will be provided. **No late submissions will be accepted.**
- **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.

## Penalties

- **Assignments**

Assignments must be submitted on or before the due date and time as email attachment(s) – not shared from cloud storage – to [nathaniel.robson@vuw.ac.nz](mailto:nathaniel.robson@vuw.ac.nz). No assignment will be accepted **for assessment purposes** after the deadline. However, because it is a mandatory course requirement that a reasonable attempt is made in this assessment item, late items must be submitted to enable an assessment of whether the mandatory course requirement has been met.

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 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**

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

Students unable to take a scheduled test due to exceptional circumstances, must complete the 'Consideration of Exceptional Personal Circumstances for Tests Application Form' available on Blackboard. Submit this form to 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.*

## 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.

### **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 23<sup>rd</sup> October – Saturday 14<sup>th</sup> November (inclusive)

### **Mandatory Course Requirements**

In addition to obtaining an overall course mark of 50 or better, students must ...

- obtain a minimum of 40% on each individual piece of assessment

Any student who is concerned that they have been (or might be) unable to meet any of the MCRs because of exceptional personal circumstances, should contact the course coordinator 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](http://www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat)

### **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.

### **Student feedback**

Student feedback on University courses may be found at

[www.cad.vuw.ac.nz/feedback/feedback\\_display.php](http://www.cad.vuw.ac.nz/feedback/feedback_display.php)

### **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.

## Course Schedule

Week	Date	Topic	Readings
1	16 Jul	Univariate Descriptive Statistics.	Chapters 2, 3.
2	23 Jul	Bivariate Descriptive Statistics.	Chapter 4.
3	30 Jul	Time Series Descriptive Statistics.	Chapter 5.
4	6 Aug	Probability Foundations Of Sampling.	Chapter 6.
5	13 Aug	The Binomial Distribution And Sampling Distributions.	Chapter 7.
6	18 Aug	<b>Assignment 1 due by 4pm on Tuesday 18 August</b>	
	20 Aug	The Normal Distribution, The Central Limit Theorem And Sampling Distributions.	Chapter 8.
<b>MID-TRIMESTER BREAK (Monday 24 August – Sunday 6 September)</b>			
7	10 Sep	<b>Test (in class)</b>	
		Sampling Distributions And Inference: Generalities.	Chapter 9.
8	17 Sep	Inference For One Population.	Chapter 9.
9	24 Sep	Inference For Two Populations.	Chapter 10.
10	1 Oct	Inference For Many Populations.	Chapter 11.
11	8 Oct	Inference For Categorical Data.	Chapter 12.
12	15 Oct	Inference For Linear Regression Models.	Chapter 13.
	16 Oct	<b>Assignment 2 due by 4pm on Friday 16 October</b>	

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