



UNSW Business School

Economics

# **COMM5011 DATA ANALYSIS FOR BUSINESS**

## **Course Outline Semester 1, 2017**

### **Part A: Course-Specific Information**

Please consult Part B for key information on Business School policies (including those on plagiarism and special consideration), student responsibilities and student support services.

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## PART A: COURSE-SPECIFIC INFORMATION

### 1 STAFF CONTACT DETAILS

Lecturer-in-charge (LiC): Dr Eric Lim (School of Information Systems and Technology Management)

Room: 2084 Level 2, Quad Building West Wing

Phone No: +61 (2) 9385 4688 Email:

[e.t.lim@unsw.edu.au](mailto:e.t.lim@unsw.edu.au)

Consultation Times: To be advised (and by appointment)

Lecturer: Gautam Gangopadhyay (School of Economics)

Room: 408, Level 4, West Wing, UNSW Business School Building Phone No: +61

(2) 9385 9774

Email: [g.gangopadhyay@unsw.edu.au](mailto:g.gangopadhyay@unsw.edu.au)

Consultation Times: To be advised

A full list of tutors will be posted on COMM5011 Moodle Website, if appropriate.

#### 1.1 Communication with Staff

The best way to contact your lecturer or tutor is via email or to see them during their consultation times. Please use your **UNSW email account** to contact staff members. To protect student privacy, staff members **will not answer** queries or disclose information relating to assessments of students if a **non-UNSW email account** is used. Please note that **formal notices** and **correspondence** regarding the course will only be sent to your **UNSW email account**.

Please contact Margaret Lo (Quad2091) should you not be able to contact either the Lecturer or your tutor. Alternatively, if you need to contact the school urgently, ring +61 (2) 9385-5320 or email: [istm@unsw.edu.au](mailto:istm@unsw.edu.au).

### 2 COURSE DETAILS

#### 2.1 Teaching Times and Locations

Lectures start in Week 1 to Week 12 and Tutorials start in Week 2 to Week 13.

For latest information about lecture and tutorial locations see: <http://www.timetable.unsw.edu.au/current/COMM5011.html>

#### 2.2 Units of Credit

The course is worth 6 units of credit. There is no parallel teaching in this course.

#### 2.3 Summary of Course

This course provides an introduction to basic analytical skills. The course provides a solid basis from which data analysis techniques and tools can be applied to solve business problems. Therefore, there is an emphasis on problem solving and business analytics by both manual and computer methods. The first six lectures focus on the use of quantitative methods and

techniques. The second six lectures focus on the use of qualitative research methods and techniques.

## **2.4 Course Aims and Relationship to Other Courses**

This course is offered as one of the Data Analysis alternatives in the core of the MCom degree. The course aims to develop students' ability to analyse qualitative and quantitative business data for operations and management purposes. It is designed for students with little or no qualitative or quantitative training in their postgraduate degree but who need to develop these skills for specialisations in the areas of Marketing, Information Systems and Human Resource Management. The skills learned are also relevant for broader specialisations including project management and business decision making. Students wishing to complete a specialisation such as Finance, Economics or Accounting where more quantitative skills are required will usually find COMM5005 or ECON5248 more appropriate as their data analysis core course.

## **2.5 Student Learning Outcomes**

The Course Learning Outcomes are what you should be able to DO by the end of this course if you participate fully in learning activities and successfully complete the assessment items.

1. Explain the need for business information
2. Understand methods for collecting business information and reporting results
3. Explain and contrast qualitative and quantitative data analysis methods
4. Analyse quantitative business data using statistical methods
5. Analyse qualitative business data using various modes, techniques and tools

The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all postgraduate coursework students in the Business School. Program Learning Goals are what we want you to BE or HAVE by the time you successfully complete your degree (e.g. 'be an effective team player'). You demonstrate this by achieving specific Program Learning Outcomes – what you are able to DO by the end of your degree (e.g. 'participate collaboratively and responsibly in teams'). For more information on the Postgraduate Coursework Program Learning Goals and Outcomes, see Part B of the course outline.

## Business Postgraduate Coursework Program Learning Goals and Outcomes

**1. Knowledge: Our graduates will have current disciplinary or interdisciplinary knowledge applicable in local and global contexts.**

You should be able to identify and apply current knowledge of disciplinary or interdisciplinary theory and professional practice to business in local and global environments.

**2. Critical thinking and problem solving: Our graduates will have critical thinking and problem solving skills applicable to business and management practice or issues.**

You should be able to identify, research and analyse complex issues and problems in business and/or management, and propose appropriate and well-justified solutions.

**3. Communication: Our graduates will be effective communicators in professional contexts.** You should be able to:

- a. Produce written documents that communicate complex disciplinary ideas and information effectively for the intended audience and purpose, and
- b. Produce oral presentations that communicate complex disciplinary ideas and information effectively for the intended audience and purpose.

**4. Teamwork: Our graduates will be effective team participants.**

You should be able to participate collaboratively and responsibly in teams, and reflect on your own teamwork, and on the team's processes and ability to achieve outcomes.

**5. Ethical, social and environmental responsibility: Our graduates will have a sound awareness of ethical, social, cultural and environmental implications of business issues and practice.**

You should be able to:

- a. Identify and assess ethical, environmental and/or sustainability considerations in business decision-making and practice, and
- b. Consider social and cultural implications of business and /or management practice.

The following table shows how your Course Learning Outcomes relate to the overall Program Learning Goals and Outcomes, and indicates where these are assessed (they may also be developed in tutorials and other activities):

Program Learning Goals and Outcomes		Course Learning Outcomes	Course Assessment Item
<i>This course helps you to achieve the following learning goals for all Business postgraduate coursework students:</i>		<i>On successful completion of the course, you should be able to:</i>	<i>This learning outcome will be assessed in the following items:</i>
1	Knowledge	Understand and apply survey and sampling techniques. Explain and apply techniques for preliminary analysis of qualitative data along with further exploring, explaining and predicting. Use and interpret descriptive and inferential statistics for quantitative data.	<ul style="list-style-type: none"> <li>• Tutorial Activities, Preparation, and Participation</li> <li>• Business Report</li> <li>• Exam</li> </ul>

2	Critical thinking and problem solving	Analyze, develop and frame business problems.	<ul style="list-style-type: none"> <li>Tutorial Activities, Preparation, and Participation</li> <li>Business Report</li> <li>Exam</li> </ul>
3a	Written communication	Draw, verify and evaluate the quality of conclusions and produce a business report.	<ul style="list-style-type: none"> <li>Business Report</li> <li>Exam</li> </ul>
3b	Oral communication	Communicate ideas in a succinct and clear manner. Explain the key issues of business data analysis.	Part of Tutorial Participation mark but not separately assessed.
4	Teamwork	Compare and contrast qualitative and quantitative methods and the information generated from each. Interpret output from analysis performed by themselves or others.	Part of Tutorial Participation mark but not separately assessed.
5a	Ethical, social and environmental responsibility	Evaluate the range of ethical issues confronting individuals when collecting and reporting data.	<ul style="list-style-type: none"> <li>Tutorial Activities, Preparation, and Participation</li> <li>Exam</li> </ul>
5b	Social and cultural awareness	Evaluate the range of cultural and social issues confronting individuals when collecting and reporting data in a global business environment.	<ul style="list-style-type: none"> <li>Tutorial Activities, Preparation, and Participation</li> <li>Exam</li> </ul>

### 3 LEARNING AND TEACHING ACTIVITIES

#### 3.1 Approach to Learning and Teaching in the Course

This course aims to develop your ability to analyse business data which comes in both text based and numerical forms and thereby to build your skills in making business decisions. It also aims to prepare you for further MCom courses which require the use of data analysis skills. You will learn how to use relevant software, tools and techniques to carry out this analysis.

Our approach to teaching this course is to give you opportunities to think and analyse like a business person. You will need to be open to:

- Thinking about how different types of business use data
- Trying a variety of data gathering and analysis techniques
- Discussing methods and results with your peers
- Writing reports that explain your findings

#### 3.2 Learning Activities and Teaching Strategies

The lectures will introduce you to the sources and uses of data in a business situation and demonstrate a number of approaches using case studies and other practical examples. The lectures will introduce techniques for both qualitative and quantitative data analysis. We expect that they will be interactive with opportunities for you to participate and ask questions.

You will further develop your understanding of techniques introduced in lectures by thorough preparation and your active participation in tutorials. The focus of the tutorials will be on discussion of methods and output with an emphasis on real life scenarios and case studies. There will be opportunities for you to engage with others through group discussion and oral presentations so that different viewpoints can be thoroughly explored. See Moodle for each week's tutorial material to prepare.

## 4 ASSESSMENT

### 4.1 Formal Requirements

In order to pass this course, you must:

- Attain an overall course mark of at least 50%.
- Attain a satisfactory performance in major components of the course. A mark of 45% or higher is normally regarded as satisfactory. If this level of performance is not achieved in the final exam, even if the overall mark of all summative assessment tasks is above 50, a UF (Unsatisfactory Fail: Unsatisfactory performance in an essential component of the course) will be awarded.
- Attendance for tutorial/laboratories is compulsory. The roll will be taken in each of these classes. Students are reminded that they are required to attend 80% of all these classes or a failure in the course will be recorded.
- Attain a satisfactory performance in each component of the course. A mark of 45 percent or higher is normally regarded as satisfactory.
- The School reserves the right to scale the final marks of any assessment to a mean of 60%.
- Team members are expected to work in a professional manner, showing care and respect for each other while engaging in debates and exchanging viewpoints.
- In the case of peer assessed group work, the mark assigned to each member of the group may be **scaled based on peer assessment of each member's contribution to the task.**

### 4.2 Assessment Details

Assessment Task	Weighting	Length	Due Date
Tutorial preparation and participation	10%	See Section 4.3 below	Ongoing (Week 02 to Week 13)
In-tutorial test (On topics from statistics)	10%	30 minutes (Open book test)	Week 05 Tutorial (A4)
Assignment based on topics from statistics	10%	Maximum 8 pages	Week 06 Tutorial (A5)
Qualitative activities (Part of tutorial activities)	20%	Refer to Section 4.3 below	Weeks 08 to Week 13
Final Exam	50%	2 hours	University Exam Period
<b>Total</b>	<b>100%</b>		

### 4.3 Assessment Format

#### Tutorial Preparation and Participation

Tutorial participation will be assessed on the basis of contribution to individual or community learning within class, which could include problem solving or analysis, group discussions, and oral presentations. All tutorial preparation and participation in class activities will be evaluated. Attendance is compulsory and roll will be taken for each tutorial. Simply attending tutorial and not preparing for class or participating in class activities will not earn you credit for this component of the course grade.

#### In-Tutorial Test (On Topics from Statistics)

In the tutorials of Week 05 (Tutorial A4), there will be a 30-minute test on statistical problems. The test will contain topics covered from Week 01 to Week 04. More information about the test will be provided by Mr Gautam Gangopadhyay when the course starts.

#### Assignment (On Topics from Statistics)

This assignment task due on Week 06 (Tutorial A5) will allow you to explore a set of data and to apply critical thinking and evaluation. You will be required to use Excel to investigate quantitative data and to write a business report which demonstrates your findings. Further details about the assignment will be posted on Moodle.

#### Qualitative Activities

For the qualitative tutorials (from week 8 to week 13), a set of three qualitative activities will be assessed as part of your continuing learning of qualitative analysis techniques – two in the form of quizzes and one as a practical coding exercise. The best two results out of the three activities will be computed (total marks for Qualitative activities = 20%).

Their details will be specified in Moodle.

#### Final Exam

The final exam will consist of calculation and essay/report style questions. Further details will be provided later in the semester on Moodle. The exams will be open book you are allowed to bring in a UNSW approved calculator. Please note that computers are not permitted so e-book materials you wish to use may need to be printed.

### 4.4 Late Submission

The late submission of assignments carries a penalty of 10% of the maximum marks for that assignment per day of lateness (including weekends and public holidays), unless an extension of time has been granted. An extension of time to complete an assignment may be granted by the course co-ordinator in case of misadventure or illness. Applications for an extension of time should be made to the course co-ordinator by email or in person. You will be required to substantiate your application with appropriate documentary evidence such as medical certificates, accident reports etc. Please note that work commitments and computer failures are grounds for an extension.

#### Quality Assurance

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are

being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

## 5 COURSE RESOURCES

The prescribed textbook for the quantitative component of this course (first half of the semester) is:

Title: ***Basic Business Statistics: Concepts and Applications***, Berenson, M., Levine, D., Szabat, K., O'Brien, M., Watson, J. and Jayne, N. 4<sup>th</sup> Edition [ISBN: 9781486018956, ISBN 10: 1486018955]

Published Date: 18/09/2015

Publisher: Pearson Australia

Also available as a VitalSource e-book [ISBN 9781486019410, ISBN 10 1486019412] at <http://www.pearson.com.au/9781486019410>

**Be aware that a hardcopy version of the textbook is allowed to be brought to the final examination. You may not however bring e-books into the exam.**

For the qualitative component of this course (second half of the semester) you will be provided with electronic copies of relevant readings compiled specially for this course. You will be given instructions to download the qualitative readings from Moodle by week six. Links to additional and suggested readings will be provided on Moodle.

### 5.1 Course Website

The website for this course is on UNSW Moodle at: <https://moodle.telt.unsw.edu.au/login/index.php>.

### 5.2 Calculator

An approved scientific calculator will be required for use in some lectures, tutorials and the final exam. For a list of UNSW exam approved calculators see: <https://student.unsw.edu.au/exam-approved-calculators-and-computers>.

An electronic calculator (a UNSW exam approved calculator) is required for the final exam. Students must use a calculator that has a tamper-proof 'UNSW Approved' label. Labels are available from UNSW Business School Student Centre.

## 6 COURSE EVALUATION AND DEVELOPMENT

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's myExperience survey is one of the ways in which student evaluative feedback is gathered. In this course, we will seek your feedback through end of semester myExperience responses evaluations.

## 7 COURSE SCHEDULE

Lectures start in **Week 01 and finish in Week 12**. Tutorials start in **Week 02** and finish in **Week 13**. Attending lectures and tutorials is critical to your success in this course; please be aware that lectures are interactive and not a simple repeat of the textbook and reading content.

### COURSE SCHEDULE

Week	Lecture Topic	Lecturer	References	Tutorial
Week 1 27 February	Course Introduction and Descriptive Statistics	Gautam Gangopadhyay	Berenson et al. (2015) Chapters 2.1-2.6 and 3.13.6	NO TUTORIALS
Week 2 6 March	Probability and Expectation	Gautam Gangopadhyay	Berenson et al. (2015) Chapters 4.1-5.3	Tutorial A1: Details in Moodle
Week 3 13 March	Inferential Statistics and Evaluation of Parameters	Gautam Gangopadhyay	Berenson et al. (2015) Chapters 6.1-6.4 and 7.17.3	Tutorial A2: Details in Moodle
Week 4 20 March	Statistical Inference and Hypothesis Testing	Gautam Gangopadhyay	Berenson et al. (2015) Chapters 8.1-8.4 and 9.19.5	Tutorial A3: Details in Moodle
Week 5 27 March	Correlation and Regression Analyses I	Gautam Gangopadhyay	Berenson et al. (2015) Chapters 12.1-12.5 and 12.9	Tutorial A4: Details in Moodle
Week 6 03 April	Multiple Regression Modelling	Gautam Gangopadhyay	Berenson et al. (2015) Chapters 12.7, 13.1-13.4, 13.6, and 14.114.4	Tutorial A5: Details in Moodle
Week 7 10 April	Introduction to Qualitative Business Research: Purpose, Nature and Data <i>(Friday 14 April is Good Friday public holiday)</i>	Eric Lim	Qualitative Readings 1	Tutorial A6: Details in Moodle
<b>Mid-Semester Break: Friday 14 April 2017 – Saturday 22 April 2017 Inclusive</b>				
Week 8 24 April	Formulating Business Problems for Qualitative Research <i>(Tuesday 25 April is Anzac Day public holiday)</i>	Eric Lim	Qualitative Readings 2	Tutorial B1: Details in Moodle

Week 9 1 May	Qualitative Research Methods 1: Secondary Data Usage, Repertory Grid, Process Tracing	Eric Lim	Qualitative Readings 3	Tutorial B2: Details in Moodle
Week 10 8 May	Qualitative Research Methods 2: Case Study, Interviews, Focus Groups	Eric Lim	Qualitative Readings 4	Tutorial B3: Details in Moodle
Week 11 15 May	Qualitative Research Methods 3: Narrative Interviews, Ethnography, Action Research	Eric Lim	Qualitative Readings 5	Tutorial B4: Details in Moodle
Week 12 22 May	Qualitative Data Analysis, Reporting, and Ethical Considerations	Eric Lim	Qualitative Readings 6	Tutorial B5: Details in Moodle
Week 13 29 May	NO LECTURES	N.A.	N.A.	Tutorial B6: Details in Moodle