

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

BUS 801

Business Forecasting

Semester 2, 2011

Department of Marketing & Management

MACQUARIE UNIVERSITY
FACULTY OF BUSINESS AND ECONOMICS
UNIT GUIDE

Year and Semester: 2011, Semester 1

Unit convenor: Con Korkofingas

Prerequisites: Entry to a Masters level programme at Macquarie University or successful completion of relevant gateway units.

Credit points: Four

Students in this unit should read this unit guide carefully at the start of semester. It contains important information about the unit. If anything in it is unclear, please consult one of the teaching staff in the unit.

ABOUT THIS UNIT

As much as businesses are involved in activities in the present, they are also involved in planning for the future. The planning process requires strategic input from managers, budgeting, evaluation of the business's current position, evaluation of the environment both internal and external, and prediction of future circumstances that will impact on the business. Forecasting is an important component of the planning process. Prediction of key variables such as sales and/or market share, external variables such as input prices, interest rates, exchange rates and economic activity are incorporated with strategic input to develop forecasts for key performance indicators of the business. These forecasts are used both as a direction for the business and benchmarks against which actual performance can be compared.

This unit explores business forecasting by considering the planning process of the organisation, the environment in which business forecasts are made, prediction of key variables using qualitative and quantitative information and the practical considerations of forecast implementation. Quantitative predictions will generally make use of spreadsheets and simple statistical procedures that can be easily applied in the business environment.

TEACHING STAFF

Convenor: Con Korkofingas

Email: ckorkof@efs.mq.edu.au

Room: E4A-629

Ph. X 8545

CONSULTATION TIMES

Tuesday 1-2pm and Wednesday 12-1pm

You are encouraged to seek help at a time that is convenient to you from a staff member teaching on this unit during their regular consultation hours. In special circumstances, an appointment may be made outside regular consultation hours. Staff will not conduct any consultations by email. You may, however, phone staff during their consultation hours.

In order to gain access to staff located at levels 1, 2 and 3 of building E4A during their consultation hours please ring the staff member from the phones available in the lobby (phone numbers of relevant staff members will be provided on Blackboard and are available next to the phones).

Students experiencing significant difficulties with any topic in the unit must seek assistance immediately.

CLASSES

Class Time: Tuesday 2-5 pm, W6B 315

- The classes will be a mix of lecture, tutorial and computer laboratory sessions. This will be flexible depending on the material covered in class and student interests. The venue for the computer lab sessions will be announced in the second week.

- The timetable for classes can be found on the University web site at:
<http://www.timetables.mq.edu.au/>
- Students are expected to arrive on time, and not to leave until the class ends.
- If you have a recurring problem that makes you late, or forces you to leave early, have the courtesy to discuss this with your lecturer
- Students must be quiet during classes, unless of course when class participation is required.
- Mobile phone must be turned OFF and not simply set to 'silent'.
- Students who disturb or disrupt in lectures and tutorial class will be asked to leave.

PRIZES

There are no prizes for this unit. Prizes for other units can be found at:

http://www.businessandconomics.mq.edu.au/undergraduate_degrees/prizes_scholarships

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Prescribed Unit Materials

There is no prescribed text for this unit.

Recommended Reading

Wilson J.H., Keating B., *Business Forecasting*, Irwin (5th edition)

Hanke, John E & Wichern, Dean W, *Business Forecasting*, (International Edition) Prentice Hall, (8th Edition)

Useful Resources

A useful website with resources for practitioners and researchers in forecasting including relevant links is;

<http://www.forecastingprinciples.com>

TECHNOLOGY USED AND REQUIRED

Students are required to learn how to use spreadsheet and word processing programs, statistical software (MINITAB or SPSS) and blackboard.

UNIT WEB PAGE

- Course material is available on the learning management system (BlackBoard). The general online website is <http://learn.mq.edu.au>.
- After login students should have access to the BBA 315 website which will contain materials that can be utilized by students in this unit.
- All resources (including lecture slides) will be available on the web site.

LEARNING OUTCOMES

The learning outcomes of this unit are:

1. an understanding of the need for, and uses of, forecasting in a business context
2. an understanding of simple quantitative forecasting techniques used in business
3. application of simple forecasting techniques using EXCEL and simple statistical programs
4. an understanding of qualitative forecasting techniques in a business environment.

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop students' generic skills in a range of areas. Students should develop skills in the following:

1. working in teams
2. taking responsibility for the students own learning

GRADUATE CAPABILITIES

Marketing graduates are expected to know the following 6 discipline specific knowledge and skills upon graduation.

1. Learn to define a forecasting problem consistent with business decisions, determine the information needs, and then gather and process data to aid those decisions.

2. Learn to apply forecasting principles to generate simple quantitative forecasts
3. Learn to be able to analyse and interpret generated forecasts within the context of the business environment
4. Learn to apply forecasting principles to generate quantitative forecasts from qualitative data
5. Learn to synthesise qualitative and quantitative information to produce quantitative forecasts

In addition to the discipline based learning objectives above, Macquarie University also seek to develop the following 8 generic capabilities in our graduates in order to address the challenges, and to be effective, engaged participants in their world.

This unit contributes to this learning by helping student develop generic skills 1, 2, 3, 4 and 5 below;

1. Discipline Specific Knowledge and Skills*
2. Critical, Analytical and Integrative Thinking
3. Problem Solving and Research Capability
4. Creative and Innovative
5. Effective Communication
6. Engaged and Ethical Local and Global citizens
7. Socially and Environmentally Active and Responsible
8. Capable of Professional and Personal Judgement and Initiative
9. Commitment to Continuous Learning

TEACHING AND LEARNING STRATEGY

- This unit is taught using lectures and tutorials. Students are expected to read in advance of lectures, and participate in tutorials. The topic outline is attached below:

Class	Date	Topics Covered	Other Information
1	22 February	<ul style="list-style-type: none"> • Outline the forthcoming series of lectures and tutorials and advise the basis on which students will be judged. • The meaning of forecasting. The philosophy of forecasting. • Organisations, planning and budgeting. 	
2	1 March	<ul style="list-style-type: none"> • Evaluation of forecasting tasks. • Definition of time series. • Sources of data for prediction. • Analysing components of Time Series. • Stationarity 	Tutorial 1 - Introduction to the Data Environment
3	8 March	<ul style="list-style-type: none"> • Errors of prediction. • Costs of errors • Simple predictor models- • Naïve, MA, Simple Exponential Smoothing. 	Tutorial 2 - Elementary smoothing
4	15 March	<ul style="list-style-type: none"> • ARSSES model • Prediction of trends • Holts smoothing model • Trend extrapolation. 	Tutorial 3 – Trend Models
5	22 March	<ul style="list-style-type: none"> • Seasonal models • Deseasonalising data • Decomposition • Winters Smoothing Model 	<p><u>Within Semester Test 1</u></p> <p><u>(covers classes 1-4 inclusive)</u></p> <p>Tutorial 4 – Smoothing-seasonality</p>
6	29 March	<ul style="list-style-type: none"> • Introduction to Regression models. • Ways to Evaluate Models • Diagnosing Regression Models 	
7	5 April	<ul style="list-style-type: none"> • Dummy Variables, Trends in Regression 	<u>Assignment 1 due</u>

		<ul style="list-style-type: none"> Autoregressions 	Tutorial 5- Regression I
		RECESS – Note NO Class on Tuesday 27th April	
8	3 May	<ul style="list-style-type: none"> Regression Modeling in Practice Ways to build models. Other quantitative techniques 	Tutorial 6 – Regression II
9	10 May	<ul style="list-style-type: none"> Leading Indicators Cycles, Anticipatory Surveys 	Tutorial 7 – Leading indicators
10	17 May	<ul style="list-style-type: none"> Judgmental methods- management, sales force forecasts. Subjective probability assessments. The role of judgmental prediction in the organisation 	
11	24 May	<ul style="list-style-type: none"> Scenario development methods DELPHI approaches Combining Forecasts Analogy methods 	<u>Within Semester Test 2 (covers classes 5 - 10 inclusive)</u>
12	31 May	<ul style="list-style-type: none"> Using all the information to forecast. Putting it all together. Forecasting in practice. The future of forecasting 	<u>Assignment 2 Due</u>

RESEARCH AND PRACTICE (DELETE THOSE NOT APPLICABLE)

- This unit uses research by Macquarie University researchers (references)
- This unit uses research from external sources (references)

- This unit gives you practice in applying research findings in your assignments
- This unit gives you opportunities to conduct your own research

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

Assessment:

Raw marks in this unit will be allocated on the following basis –

Assignments	30 %
Within Semester tests	20 %
Final Examination	50%

Assignments

There will be two assignments in this unit.

Assignment 1: The first assignment will be a short **individual** assignment due in Week 7 (5th April). For every day late a 20% penalty will apply for each day late. This assignment will be worth **10%** of the raw mark in this unit.

Working together on computing can be beneficial, however students should ensure that all work reported in the individual assignment relating to answers and conclusions is their own. There will be heavy penalties for plagiarism (zero marks for this assessment component at a minimum).

The assignment will be placed on the web in the second week of the semester.

(Note: you will NOT be judged on the quantity of computer output nor strictly on the correctness of answers. The logic and justification of your answers with evidence will be of paramount importance. Presentation of answers and output will also be regarded).

Assignment 2: The second assignment will be a longer group/individual assignment due by Tuesday 31st May in class. The assignment can be done in groups of **no more** than 5 or can be done individually. The number of people in the group will not be a consideration for the awarding of marks in the assignment. Late assignments will attract a 20% penalty for each

day late. This assignment will be worth 20% of the raw mark in this unit. All members of the group will receive the same raw mark unless an included peer review statement indicates otherwise.

The assignment will be placed on the web in the first few weeks of the semester.

(Note: you will NOT be judged on the quantity of computer output nor strictly on the correctness of answers. The logic and justification of your answers with evidence will be of paramount importance. Presentation of answers and output will also be regarded).

There will be heavy penalties for plagiarism (zero marks for this assessment component at a minimum).

- Assignment 1 will assess the following learning outcomes :1, 2 and 3.
- Assignment 2 will assess all learning outcomes: 1, 2, 3, 4

Within-semester tests

There will be two within-semester tests to be held in class on Tuesday 22nd March and Tuesday 24th May in class. The first test (Tuesday 22nd March) will cover all material from weeks 1-4 inclusive and will consist of multiple choice questions. The second test (Tuesday 24th May) will cover all material from weeks 5-10 inclusive and will consist of multiple choice questions. **There is no provision for supplementary examinations for the within-semester tests.**

- Within Semester test 1 will assess the following learning outcomes :1, 2 and 3.
- Within Semester test 1 will assess all learning outcomes: 1, 2, 3, 4

Final Examination:

- A 3-hour final examination for this unit will be held during the University Examination period.
- Successful completion of the unit is conditional on a satisfactory assessment in the final exam.
- The final examination may consist of multiple choice, True or False questions and/or short answer questions. **All material in the unit is examinable.** Further details about the final examination will be given later in the semester.

- In the examination components of the unit, most complex formulae will be provided however students will be expected to memorise simpler formulae. Statistical tables will be provided.
- All examinations are closed book. Students will also be required to perform calculations requiring a calculator so they should bring one to all examinations.
- The University Examination period in First Half Year 2011 is from 6 to 24 June.
- You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations
<http://www.timetables.mq.edu.au/exam>
- The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. Information about unavoidable disruption and the special consideration process is available at
<http://www.reg.mq.edu.au/Forms/APSCon.pdf>
- If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period. (Individual Divisions may wish to signal when the Division's Supplementaries are normally scheduled.)
- The Macquarie university examination policy details the principles and conduct of examinations at the University. The policy is available at:
<http://www.mq.edu.au/policy/docs/examination/policy.htm>

ACADEMIC HONESTY

The nature of scholarly endeavour, dependent as it is on the work of others, binds all members of the University community to abide by the principles of academic honesty. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately.

Further information on the academic honesty can be found in the Macquarie University Academic Honesty Policy at http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

GRADES

Macquarie University uses the following grades in coursework units of study:

HD - High Distinction

D - Distinction

CR - Credit

P - Pass

F - Fail

Grade descriptors and other information concerning grading are contained in the Macquarie University Grading Policy which is available at:

<http://www.mq.edu.au/policy/docs/grading/policy.html>

GRADING APPEALS AND FINAL EXAMINATION SCRIPT VIEWING

If, at the conclusion of the unit, you have performed below expectations, and are considering lodging an appeal of grade and/or viewing your final exam script please refer to the following website which provides information about these processes and the cut off dates in the first instance. Please read the instructions provided concerning what constitutes a valid grounds for appeal before appealing your grade.

http://www.businessandeconomics.mq.edu.au/for/new_and_current_students/undergraduate/admin_central/grade_appeals.

SPECIAL CONSIDERATION

The University is committed to equity and fairness in all aspects of its learning and teaching. In stating this commitment, the University recognises that there may be circumstances where a student is prevented by unavoidable disruption from performing in accordance with their ability. A special consideration policy exists to support students who experience serious and

unavoidable disruption such that they do not reach their usual demonstrated performance level. The policy is available at:

http://www.mq.edu.au/policy/docs/special_consideration/procedure.html

STUDENT SUPPORT SERVICES

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at <http://www.student.mq.edu.au>.

IT CONDITIONS OF USE

Access to all student computing facilities within the Faculty of Business and Economics is restricted to authorised coursework for approved units. Student ID cards must be displayed in the locations provided at all times.

Students are expected to act responsibly when utilising University IT facilities. The following regulations apply to the use of computing facilities and online services:

- Accessing inappropriate web sites or downloading inappropriate material is not permitted. Material that is not related to coursework for approved unit is deemed inappropriate.
- Downloading copyright material without permission from the copyright owner is illegal, and strictly prohibited. Students detected undertaking such activities will face disciplinary action, which may result in criminal proceedings.
- Non-compliance with these conditions may result in disciplinary action without further notice.
- Students must use their Macquarie University email addresses to communicate with staff as it is University policy that the University issued email account is used for official University communication.