

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

Unit code: BBA 315
Unit Name: Business Forecasting

First Semester, 2011

Department of Marketing & Management

**MACQUARIE UNIVERSITY
FACULTY OF BUSINESS AND ECONOMICS
UNIT GUIDE**

Year and Semester: 2011 Semester 1

Unit convenor: Dr Hamin

Prerequisites: 36cp and (STAT170 or STAT171)

Credit points: Three

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

- Lecturer: Dr Hamin (hamin.hamin@mq.edu.au; tel: 9850-6479)
- Tutor: Con Korkofingas (con.korkofingas@mq.edu.au)

CONSULTATION TIMES

- Consultation time with Dr Hamin: Tuesday 3 - 5pm; room 651, 6th floor, building E4A.
- Consultation time with tutor: during tutorials or by appointment

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

CLASSES

- Number and length of classes: 3 hours face-to-face teaching per week, consisting of 1 x 2 hour lecture and 1 x 1 hour tutorial.
- The timetable for classes can be found on the University web site at: <http://www.timetables.mq.edu.au/>
- Once the tutorial groups are formed, students cannot change their classes.
- Attendance will be taken in class.
- Medical certificates must be provided if you are not able to attend a class without incurring a penalty.
- Students are expected to arrive on time, and not to leave until the class ends.

PRIZES

- Prizes for this unit (if applicable). http://www.businessandeconomics.mq.edu.au/undergraduate_degrees/prizes_scholarships

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Required and Recommended texts and/or materials

Hanke, John E & Wichern, Dean W, 2009. Business Forecasting, (International Edition) Prentice Hall, (9th Edition)

Additional readings

You do *not* need to buy these books. Occasionally, handouts thereof might be distributed in class.

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

TECHNOLOGY USED AND REQUIRED

- Students are required to learn how to use spreadsheet and MNITAB 16.

UNIT WEB PAGE

The web page for this unit can be found at: Blackboard <http://learn.mq.edu.au>

LEARNING OUTCOMES

The learning outcomes of this unit are:

1. To gain an understanding of the need for, and uses of, forecasting in a business context
2. To gain an understanding of simple quantitative forecasting techniques used in business
3. To learn the application of a number of forecasting techniques using EXCEL and other statistical programs such as Minitab
4. To gain an understanding of qualitative forecasting techniques in a business environment.

GRADUATE CAPABILITIES

BBA graduates are expected to know the following 7 discipline specific knowledge and skills upon graduation. This unit contributes to this learning by helping student develop capability number 7 below (*italicised*).

1. An understanding of the internal component parts of a business organisation and their interrelationships
2. Recognising all the elements that comprise an organisation's environment and understanding how the organisation interacts with them
3. An understanding of the role of the organisation in promoting and providing a sustainable natural environment
4. An understanding of the contribution of marketing in an organisation's interactions with its environment
5. An understanding of accounting as a tool for describing an aspect of an organisation's operations and its role in monitoring and controlling activity
6. An understanding of law as an element of the organisation's environment and a basis for a socially responsible organisation's behaviour
7. *An ability to develop strategy while understanding its role in defining an organisation and progressing it toward a desired competitive position*

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop the capabilities the University's graduates will need to develop 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 number 1, 2 and 7 below (*italicised*).

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

TEACHING AND LEARNING STRATEGY

This unit is lecture- and tutorial-based. Typically, the class-time structure will be like this:

- During lectures, Business Forecasting theory and concepts will be discussed. We will establish links between theory and your personal knowledge in an business strategic planning setting during class discussions.
- During tutorials, students are required to work on some tasks of business forecasting solutions using several models and techniques. Student participation and meaningful contributions are essential to understand business forecasting concepts and calculations.
- The lecture notes will be posted on <http://learn.mq.edu.au/> on a weekly basis. For your own convenience it is recommended to print hardcopies of the respective notes *before* coming to class. The recording (video or tape) of lectures or tutorials is *not* permitted. If you miss a class/tutorial, ask a colleague for their notes.

The topics to be covered each week are as follows:

Week	Topics Covered	Chapter(s)	Other Information
1	<ul style="list-style-type: none"> • Introduction Forecasting in management • The philosophy of forecasting 	1 and 11	
2	<ul style="list-style-type: none"> • Exploring Data Patterns and Introduction to Forecasting Techniques • Measuring Forecasting Error 	3	Tutorial 1 - Introduction to the Data Environment
3	<ul style="list-style-type: none"> • Moving Averages and Smoothing Methods: Naïve, MA, Simple, and Exponential Smoothing 	4	Tutorial 2 – Exploring data pattern
4	<ul style="list-style-type: none"> • Exponential Smoothing 	4	Tutorial 3 -

	Methods: Holt's and Winter's Method		Elementary smoothing
5	<ul style="list-style-type: none"> Time Series and Their Components 	5	Tutorial 4 – Trend Models
6	<ul style="list-style-type: none"> Simple Linear Regression 	6	Tutorial 5 – Seasonality
7	<ul style="list-style-type: none"> Multiple Regression Models Dummy Variables 	7	Within Semester Test 1 in Tutorials (covers weeks 1-5 inclusive)
	RECESS		
8	Public Holiday – Labour Day		
9	<ul style="list-style-type: none"> Regression with Time Series Data Cointegrated Time Series 	8	Tutorial 6 – Regression I
10	<ul style="list-style-type: none"> The Box-Jenkins (ARIMA) Methodology: Non-seasonal ARIMA The Box-Jenkins (ARIMA) Methodology: Seasonal ARIMA 	9	Tutorial 7 – Regression II
11	<ul style="list-style-type: none"> Leading Indicators and Business Cycles 		Project assignment review
12	<ul style="list-style-type: none"> Judgmental Forecasting and Forecast Adjustments (1) 	10	Within Semester Test 2 in Tutorials (covers weeks 6 - 11)

			inclusive) Group assignment Due in BESS
13	<ul style="list-style-type: none"> Judgmental Forecasting and Forecast Adjustments (2) Course Review for Final Exam 	10	Tutorial 7 - Leading Indicators

RESEARCH AND PRACTICE

- This unit also uses research from the following journals:
 - ❖ Hamlin and Greg Elliott (2006), "A Less Developed Country Perspective of Consumer Ethnocentrism and "Country-of-Origin" Effects: Indonesian Evidence", Asia Pacific Journal of Marketing and Logistics, Vol. 18, No. 2
 - ❖ Journal of Business Forecasting
- 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 Task 1	Assessment Task 2	Assessment Task 3	Assessment Task 4	Assessment Task 5	Total
Title/Name	Project Assignment	Within Semester Test	Within Semester Test	Participation	Final Exam	
Description	Group or individual assignment	Test 1, closed book test	Test 2, closed book test	Individual contribution throughout semester	Closed book exam	
Due date	Week 12	Week 7	Week 12	Continuous	TBA	
% Weighting	30%	10%	10%	10%	40%	
Grading method	The assignment can be done in groups of no more than 5 or can be done individually. One mark per team.	Multiple choice type questions. Individual mark.	Multiple choice type questions Individual mark.	Attendance at class Meaningful contributions during class time Punctuality Professional conduct and behaviour. Individual	Multiple choice type and short answer questions. Individual mark.	

	Assessment Task 1	Assessment Task 2	Assessment Task 3	Assessment Task 4	Assessment Task 5	Total
Submission method	Due in BESS in room E4B 106 by 5:00 pm on the due date	During tutorial in Week 7	During tutorial in Week 12	mark. n/a	On campus exam	
Feedback	Mark and comments	Mark	Mark	Mark	Mark	
Estimated student workload (hours)	30 hours	15 hours	15 hours	15 hours	30 hours	95 hours
To gain an understanding of the need for, and uses of, forecasting in a business context		5	5		10	20
To gain an understanding of simple quantitative forecasting techniques used in business	5				10	15
To learn the application of a number of forecasting techniques using EXCEL and other statistical programs such as Minitab				5	10	15
To gain an understanding of qualitative forecasting techniques in a business environment.	10				10	20
Graduate capabilities assessed:						
Critical, Analytical and Integrative Thinking	5	5	5			15
Problem Solving and Research Capability	5			5		10
Capable of Professional and Personal Judgement and Initiative	5					5
Total	30%	10%	10%	10%	40%	100%

Successful completion of the unit is conditional on a satisfactory assessment in the final exam.

Project Assignment: The assignment will be a group/individual assignment due by 5 pm Monday 23rd May in BESS. 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. Registration of groups will be open from 9:00 AM Monday 28th February and close at 5:00 pm Friday 11 March; or Students who do not register into groups will need to submit their assignments as individuals. Late assignments will attract a 20% penalty of the assignment mark for each day late. All members of the group will receive the same raw mark unless an included peer review statement indicates otherwise.

This assignment will be worth 30% of the raw mark in this unit.

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).

Within-semester tests

There will be two within-semester tests to be held in tutorials on Monday 4th April and Monday 23rd May in your tutorial time. The first test (Monday 4th April) will cover all material from weeks 1-5 inclusive and will consist of multiple choice questions. The second test (Monday 23rd May) will cover all material from weeks 6 – 11 inclusive and will consist of multiple choice questions. **There is no provision for supplementary examinations for the within-semester tests.**

Tutorial participation

Your participation throughout the semester will be evaluated by the lecturers. Your evaluation in this respect will depend predominantly on:

- Attendance at tutorials
- Meaningful contributions during tutorial time
- Punctuality
- Professional conduct and behaviour

Final Examination

You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The final examination will be held during the normal first semester examination period in June. 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 final examination will be a three hour examination which 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 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. The University's policy on special consideration process is available at http://www.mq.edu.au/policy/docs/special_consideration/policy.html

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 Faculties may wish to signal when the Faculties' Supplementary Exams 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.businessandconomics.mq.edu.au/new_and_current_students/undergraduate_current_students/how_do_i/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.