

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

**BBA315
BUSINESS FORECASTING**

Semester 2, 2010

Department of Business

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

Year and Semester: Semester 2, 2010

Unit convenor: Dr Hamin

**Prerequisites / Corequisites: Admission to BBA or BCom-Mktg or
BlntBus; STAT170 or STAT171; 36 cp**

Students in this unit should read this unit outline 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

BBA315 is a 3 credit point 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	Email: hamin.hamin@mq.edu.au Phone: 9850 6479 Room: E4A 651 Consultation time: Tuesday 3pm – 5pm
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CONSULTATION TIMES

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

Lecture Time:	Monday 16 - 18 W5A Price Theatre
Tutorial Times:	Class 01 Mon 11 E4B 214 Class 02 Mon 13 E4B 111 Class 02 Mon 13 E4B 214 Class 03 Mon 14 E4B 111 Class 04 Mon 15 E4B 111

Part of your assessment is your participation during tutorials. You are therefore required to attend tutorials.

The timetable for classes can be found on the University web site at: <http://www.timetables.mq.edu.au/>

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Required textbook

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)

Journal of Business Forecasting

Useful Resources

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

<http://www.forecastingprinciples.com>

UNIT WEB PAGE

All announcements and resources (including lecture slides) will be available on **Blackboard** (<http://learn.mq.edu.au>)

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 a number of forecasting techniques using EXCEL and other statistical programs such as Minitab
4. an understanding of qualitative forecasting techniques in a business environment.

GRADUATE CAPABILITIES

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 by developing the following graduate capabilities:

1. Discipline Specific Knowledge and Skills
2. Critical, Analytical and Integrative Thinking
3. Problem Solving and Research Capability
4. Creative and Innovative
5. Capable of Professional and Personal Judgement and Initiative
6. 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.

Lecture Program: 2010, Sem 2

Week	Date	Topics Covered	Chapter(s)	Other Information
1	2 August	<ul style="list-style-type: none"> • Introduction Forecasting in management • The philosophy of forecasting 	1 and 11	
2	9 August	<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	16 August	<ul style="list-style-type: none"> • Moving Averages and Smoothing Methods: Naïve, MA, Simple, and Exponential Smoothing 	4	Tutorial 2 – Exploring data pattern
4	23 August	<ul style="list-style-type: none"> • Exponential Smoothing Methods: Holt's and Winter's Method 	4	Tutorial 3 - Elementary smoothing
5	30 August	<ul style="list-style-type: none"> • Time Series and Their Components 	5	Tutorial 4 – Trend Models
6	6 September	<ul style="list-style-type: none"> • Simple Linear Regression 	6	Tutorial 5 – Seasonality
7	13 September	<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	4 October	Public Holiday – Labour Day		
9	11 October	<ul style="list-style-type: none"> • Regression with Time Series Data 	8	Tutorial 6 – Regression I

		<ul style="list-style-type: none"> • Cointegrated Time Series 		
10	18 October	<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	25 October	<ul style="list-style-type: none"> • Leading Indicators and Business Cycles 		Project assignment review
12	1 November	<ul style="list-style-type: none"> • Judgmental Forecasting and Forecast Adjustments (1) 	10	Tutorial 7 - Leading Indicators Group assignment Due in BESS
13	8 November	<ul style="list-style-type: none"> • Judgmental Forecasting and Forecast Adjustments (2) • Course Review for Final Exam 	10	Within Semester Test 2 in Tutorials (covers weeks 6 - 12 inclusive)

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

	Assessment Task 1	Assessment Task 2	Assessment Task 3	Assessment Task 4	Assessment Task 5
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	1 November 2010	13 September 2010	8 November 2010	Continuous	TBA

	Assessment Task 1	Assessment Task 2	Assessment Task 3	Assessment Task 4	Assessment Task 5
% 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 mark.	Multiple choice type and short answer questions. Individual mark.
Submission method	Due in BESS in room E4B 106 by 5:00 pm on the due date	During tutorial on Week 7	During tutorial on Week 13	n/a	On campus exam
Feedback	Mark and comments	Mark	Mark	Mark	Mark
Estimated student workload (hours)	24	12	12	n/a	24
an understanding of the need for, and uses of, forecasting in a business context	✓	✓	✓	✓	✓
an understanding of simple quantitative forecasting techniques used in business	✓	✓	✓	✓	✓
application of a number of forecasting techniques using EXCEL and other statistical programs such as Minitab	✓			✓	✓
an understanding of qualitative	✓		✓	✓	✓

	Assessment Task 1	Assessment Task 2	Assessment Task 3	Assessment Task 4	Assessment Task 5
forecasting techniques in a business environment					
Discipline Specific Knowledge and Skills	✓	✓	✓	✓	✓
Critical, Analytical and Integrative Thinking	✓			✓	
Problem Solving and Research Capability	✓	✓	✓		✓
Creative and Innovative	✓			✓	
Capable of Professional and Personal Judgement and Initiative	✓	✓	✓		✓
Commitment to Continuous Learning	✓			✓	

It is a requirement to pass the *individual* components in order to pass the unit overall.

Project Assignment: The assignment will be a group/individual assignment due by 5 pm Monday 1st November 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 6 September and close at 5:00 pm Friday 10 September; 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 13 September and Monday 8 November in your tutorial time. The first test (Monday 13 September) will cover all material from weeks 1-5 inclusive and will consist of multiple choice questions. The second test (Monday 8 November) 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 November - December. 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

Please refer to relevant Bachelor Degree rule in the Handbook of Undergraduate Studies.

The raw mark will not necessarily be exactly the same as the final mark awarded. Raw marks may be scaled according to normal statistical procedures.

* Note that the total raw mark a student has achieved will not necessarily be indicative of the grade the student obtains. At the final tabulation stage, consideration will be given to individual student performance in all aspects of assessment but **especially in the examination components** and the above criteria for a grade will apply. Student raw marks may then be adjusted to reflect the grade awarded

All students are required to perform satisfactorily in the final examination to obtain a passing grade for the unit. The combined performance of the student in the examination components of the course will be a prime determinant of the student's final grade in this unit. **In the case that a student has not achieved a satisfactory performance in the examination components, the final mark awarded will be indicative of that examination performance ie marks in other assessment tasks will be weighted differently in the final mark.**

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/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.