BBA 315

Business Forecasting

S1 Day 2015

Dept of Marketing and Management

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
Hume Winzar
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E4A 633
Wednesday 11:00 to 13:00

Yang Yang
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Credit points
3

Prerequisites
39cp including (STAT150 or STAT170 or MKTG216)

Corequisites

Co-badged status

Unit description
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.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

To gain an understanding of the need for, and uses of, forecasting in a business context

To gain an understanding of simple quantitative forecasting techniques used in business

To gain an understanding of qualitative forecasting techniques in a business environment

To learn the application of a number of forecasting techniques using Spreadsheets and

other statistical programs

Assessment Tasks

Name	Weighting	Due
Quiz	20%	Week 8
PeerWise contribution	10%	Ongoing
Case Study/Report	30%	Week 13
Final Examination	40%	University Examination Period

Quiz

Due: **Week 8**
Weighting: **20%**

A within-semester test held in tutorials in week 8. The test will cover all material from weeks 1-7 inclusive and will consist of 30 multiple choice questions

NB: There is no provision for supplementary examinations for the within-semester test. If you are unable to attend the quiz then marks will be allocated pro-rata based on your final examination marks.

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PeerWise contribution

Due: **Ongoing**
Weighting: **10%**

This semester we will be using PeerWise as a place for you to create, share and evaluate assessment questions with your classmates. Start by visiting PeerWise here: http://peerwise.cs.auckland.ac.nz/at/?mq_au

If you have not used PeerWise before, just click the "Registration" link and follow the prompts. All you need to do is choose a user name and a password for your PeerWise account.

If you have used PeerWise before, simply log in and then select "Join course" from the Home menu.

To access our course, "BBA_315 - Business Forecasting S1-2015", you will need to enter two

pieces of information:

1. Course ID = **10555**
2. Identifier = **Please enter your MQ_Student_ID**

10 marks are awarded for contribution to the PeerWise service by writing, answering, commenting on questions that are related with Business Forecasting.

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Case Study/Report

Due: **Week 13**
Weighting: **30%**

This report is written document reporting on the comprehensive business forecasting project. You will provide and analyse empirical data and form an argument based on academic and business literature.

This is a group assignment. Groups will be of two or three participants. You may not do this assignment individually. The number of people in the group will not be a consideration for the awarding of marks in the assignment.

1. **Late assignments will attract a 20% penalty (6 marks) for each day or part day late.**
2. **All members of the group will receive the same raw mark unless an included peer review statement indicates otherwise.**

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- To gain an understanding of qualitative forecasting techniques in a business environment
- To learn the application of a number of forecasting techniques using Spreadsheets and other statistical programs

Final Examination

Due: **University Examination Period**
Weighting: **40%**

- Three-hour examination

- 10% Multiple Choice Questions, 30% Short Answer Questions

- All material in the unit is examinable

- *Most complex formulae, and statistical tables, will be provided with the examination. Simpler formulae will not be provided*

- *Students may bring into the examination*

    ◦ *a calculator (not a smart-phone) and*

    ◦ *a single A4 page of notes on both sides in any format.*

Further details about the final examination will be given later in the semester.

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

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Delivery and Resources

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/

Prizes

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

Recommended Texts and/or Materials

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

class.

Hanke, John E & Wichern, Dean W, (2013), *Business Forecasting,* (International Edition) Pearson, (9th Edition) ISBN: 9781292023007, ISBN 10: 1292023007

Also available as a Kindle book.

Additional readings

Hyndman, Rob J and Athanasopoulos, George (2014), *Forecasting: principles and practice*, OTexts Online: https://www.otexts.org/fpp/

Technology Used and Required

Students will learn to use spreadsheet (*MS-Excel*) and *MINITA*B.

Unit Web Page

The web page for this unit can be found at: *iLearn* http://ilearn.mq.edu.au

Teaching and Learning Strategy

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

- **Lectures**: Business Forecasting theory and concepts will be discussed. We will establish links between theory and your personal knowledge in a business strategic planning setting during class discussions.
- **Tutorials**: students are required to work on some tasks of business forecasting solutions using several models and techniques. Student participation and meaningful contribution are essential to understand business forecasting concepts and calculations.

Lecture notes will be posted before each lecture on *iLearn*

Unit Schedule

Week	Topics Covered	Chapter(s)	Other Information
1	· Introduction Forecasting in management · The philosophy of forecasting	Hanke & Wichern Ch. 1 and 11 Hyndman & Athanasopoulos Ch. 1 and 2	
2	· Exploring Data Patterns and Introduction to Forecasting Techniques	Hanke & Wichern Ch. 3	Tutorial – Introduction to the Data Environment
3	· Judgmental Forecasting	Hyndman & Athanasopoulos Ch. 3	Tutorial – Exploring data pattern

4	· Moving Averages and Smoothing Methods: Simple Exponential Smoothing	Hanke & Wichern Ch. 4	Tutorial – Elementary smoothing
5	· Exponential Smoothing Methods: Holt's and Winter's Method	Hanke & Wichern Ch. 5 Hyndman & Athanasopoulos Ch. 7	Tutorial – Trend Models
6	· Time Series and Their Components	Hanke & Wichern Ch. 6 Hyndman & Athanasopoulos Ch. 6	Tutoriall – Seasonality
7	· Simple Linear Regression	Hanke & Wichern Ch. 7 Hyndman & Athanasopoulos Ch. 4	Tutorial – Regression I
8	· Multiple Regression Models Dummy Variables	Hanke & Wichern Ch. 7 Hyndman & Athanasopoulos Ch. 5	**Quiz in Tutorials** **(covers weeks 1-7 inclusive)**
9	· Regression with Time Series Data	Hanke & Wichern Ch. 8	Tutorial – Regression II
10	· The Box-Jenkins (ARIMA) Methodology: Non-seasonal ARIMA · The Box-Jenkins (ARIMA) Methodology: Seasonal ARIMA	Hanke & Wichern Ch. 9 Hyndman & Athanasopoulos Ch. 8	Tutorial – Leading Indicators
11	· Leading Indicators and Business Cycles		Project assignment review
12	· Judgment and Forecast Adjustments (1)	Hanke & Wichern Ch. 10 Hyndman & Athanasopoulos Ch. 3	Project assignment review
13	· Judgment and Forecast Adjustments (2) · Course Review for Final Exam	Hanke & Wichern Ch. 10	**Group assignment Due**

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/help/.

When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- To gain an understanding of the need for, and uses of, forecasting in a business context
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- To gain an understanding of qualitative forecasting techniques in a business environment

Assessment tasks

- PeerWise contribution
- Case Study/Report

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- To gain an understanding of simple quantitative forecasting techniques used in business
- To learn the application of a number of forecasting techniques using Spreadsheets and other statistical programs

Assessment tasks

- Quiz
- PeerWise contribution
- Case Study/Report
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- To gain an understanding of the need for, and uses of, forecasting in a business context
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Assessment tasks

- Quiz
- PeerWise contribution
- Case Study/Report
- Final Examination

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

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Assessment tasks

- Quiz
- PeerWise contribution
- Case Study/Report

- Final Examination

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- To learn the application of a number of forecasting techniques using Spreadsheets and other statistical programs

Assessment task

- Final Examination

Changes from Previous Offering

Judgement-based forecasting has been given some extended treatment over previous offerings, and we present some additional methods of customer-based and sales-based forecasting techniques.

As a result, there is a slight reduction to the previous focus on time-series extrapolation.

Research and Practice

- This unit includes research by the unit convenor and other Macquarie University researchers
- This unit uses research from external sources. This unit gives you opportunities to learn how to critique current research at the frontiers of your discipline as a prelude to later conducting your own research.

- Journal of Forecasting
- Foresight: the international journal of applied forecasting
- International Journal of Forecasting
- Journal of International Business Studies
- Journal of Marketing Research