1. **Overview of ECON241**

**NOTE:** Commencing in 2010 the code for this unit has changed from ECON141 to ECON241. In all other respects, ECON241 is exactly the same as ECON141.

The aim of ECON241 is to acquaint students with econometric techniques frequently used in the analysis of economic, financial and marketing data. A basic level of competence in using these techniques, together with an appreciation of their strengths and limitations, is essential for economists, financial analysts and market researchers.

The unit builds on statistical techniques covered in STAT170 (Introductory Statistics) with emphasis given to applications in economics, finance and marketing. Mathematical proofs and derivations are considered only to the extent necessary to facilitate an understanding of key concepts and the interpretation of results.

During the semester students will be required to use the WINDOWS based computer program ECSTAT, which runs in EXCEL. The use of this computer program is an integral component of tutorial exercises, supplementary and revision exercises, and the assignment. Instruction in the use of the computer program will be given in lectures, tutorials and practicals as required. The computing component of the unit is not examinable in the End-of-Semester (Final) Examination.

"Louis Armstrong was an economist. Every note was important, and it counted for something."

−ABC television program on Jazz.

"Econometrics is the quantitative arm of economics. It is the closest that economics gets to being a science."

−Roger Tonkin
Lecturer in Econometrics
Macquarie University

2. **Prerequisites**

ECON241 has two prerequisites. Students must have obtained at least a PC (or CQ) in:

(i) STAT170, or STAT171;
   and
(ii) ECON110, or ECON111, or BBA103
2a. **Mathematics prerequisite for ECON241**

Prior to 2009 students enrolling in ECON241 must have obtained a pass grade in mathematics at a level equivalent to 2 Unit Mathematics for the New South Wales Higher School Certificate (HSC). Commencing in the first semester 2009, that formal mathematics prerequisite no longer applies. However, commencing in 2010, the University has determined that for students who enrol in ECON241 it will be assumed that they have satisfied the mathematics prerequisite that applied prior to 2009. That is, it is now assumed that students who enrol in ECON241 have obtained a pass grade in mathematics at a level equivalent to 2 Unit Mathematics for the New South Wales Higher School Certificate (HSC). In particular, the material covered in ECON241 now assumes that students who have enrolled in the unit are familiar with elementary concepts associated with the use of exponentials, logarithms, and calculus. For students who have not previously studied these aspects of mathematics, or for students who feel they need to revise their High School mathematics, it is strongly recommended that they enrol in ECON131: Quantitative Methods in Business, Economics and Finance, and obtain a pass grade in that unit, before enrolling in ECON241.

3. **ECON241 Web Page**

The web address for the Online Teaching Facility at Macquarie University is: [http://learn.mq.edu.au](http://learn.mq.edu.au). Students enrolled in ECON241 can access the Blackboard web site for ECON241 from the Online Teaching Facility.

4. **Workload**

Students are expected to devote AT LEAST nine hours each week to ECON241, including attendance at Lectures, Tutorials and the Computing Practical.

5. **Text-book**

The prescribed text-book for the unit is:

*Gujarati, D.N.*

**ESSENTIALS OF ECONOMETRICS, Fourth Edition**

McGraw-Hill/Irwin, 2010

The Lecture Notes used in ECON241 can be downloaded from the ECON241 web-site on Blackboard. The Lecture Notes, together with the lectures and text-book references, provide students with a clear indication of the content and scope of the unit. At the time of the preparation of this Outline, arrangements are being made for students to purchase a printed copy of the Lecture Notes from the University Printery.

Students enrolled in ECON241 are strongly advised to bring with them a copy of the relevant section of the Lecture Notes to each lecture, and to ensure that they have access to a copy of the text-book.
6. **Recommended Reference Books**

The following reference books are highly recommended for all students enrolled in ECON241:

*Studenmund, A.H.*  
**USING ECONOMETRICS: A PRACTICAL GUIDE, Fifth Edition,**  
Pearson/Addison-Wesley, 2006

*Dougherty, C.*  
**INTRODUCTION TO ECONOMETRICS, Third Edition,**  
Oxford University Press, 2007

These two books have excellent non-technical discussions of the material discussed in ECON241. Some of the notation and some of the mathematical conventions used in formulae and equations in Studenmund’s book differ from the notation and conventions used in many introductory econometric text-books and in ECON241. For that reason, and only for that reason, Studenmund’s text-book cannot be recommended as a prescribed text-book for ECON241. However, there is a strong argument that students should be made aware of the differences in notation and conventions that exist in the econometric literature. The book by Studenmund serves that purpose for students enrolled in ECON241, in addition to providing a clear non-technical discussion of basic econometric concepts and procedures.

7. **Supplementary Reading**

There are a number of introductory books on Economic Statistics, Regression Analysis and Econometrics. Students may find the following books useful:

*Bechtold, B., and R. Johnson,*  
**STATISTICS FOR BUSINESS AND ECONOMICS,**  
PWS-Kent, 1989

*Berenson, M.L., and D.M. Levine*  
**BASIC BUSINESS STATISTICS, 5th Edition,**  
Prentice-Hall, 1992

*Berry, W.D., and S. Feldman*  
**MULTIPLE REGRESSION IN PRACTICE**  
Sage Publications, 1985
* Cameron, S.
ECONOMETRICS
McGRAW-Hill, 2005

Croucher J.S., and E. Oliver
STATISTICS: A MODERN INTRODUCTION FOR BUSINESS AND
MANAGEMENT,
McGraw-Hill, 1986

* Halcoussis, D.,
UNDERSTANDING ECONOMETRICS,
South-Western (Thompson), 2005

* Eastman, B.D.
INTERPRETING MATHEMATICAL ECONOMIC AND
ECONOMETRICS
St Martin’s Press, 1984

* Griffiths, W., R.C. Hill & G.G. Judge
LEARNING AND PRACTICING ECONOMETRICS
Wiley, 1993

* Harrison, S.R., and R.H.U. Tamaschke
APPLIED STATISTICAL ANALYSIS
Prentice-Hall, 1984

* Harrison, S.R., and R.H.U. Tamaschke
STATISTICS FOR BUSINESS, ECONOMICS AND MANAGEMENT
Prentice-Hall, 1993

Hebden, J.
STATISTICS FOR ECONOMISTS
Philip Allan, 1981

Hey, J.D.
STATISTICS IN ECONOMICS
Martin Robertson, 1974

** Hill, C., W. Griffiths and G. Judge
UNDERGRADUATE ECONOMETRICS
John Wiley & Sons, 1997

** Kelejian, H.W., and W.E. Oates
INTRODUCTION TO ECONOMETRICS, 2nd Edition
Harper & Row, 1981
Kennedy, P.
A GUIDE TO ECONOMETRICS, 5th Edition
Blackwell, 2003

Kenkel, J.L.
INTRODUCTORY STATISTICS FOR MANAGEMENT & ECONOMICS,
3rd Edition, PWS-Kent, 1984

Kmenta, J.
ELEMENTS OF ECONOMETRICS
Macmillan, 1971

Koutsoyiannis, A.
THEORY OF ECONOMETRICS, 2nd Edition

Lewis-Beck, M.S.
APPLIED REGRESSION: AN INTRODUCTION
Sage Publications, 1980

Lewis, D.E., D.T. O'Brien and D. Thampapillai
STATISTICS FOR BUSINESS AND ECONOMICS

Mansfield, E.
STATISTICS FOR BUSINESS & ECONOMICS, 2nd Edition
Norton, 1983

Mirer, T.W
ECONOMIC STATISTICS & ECONOMETRICS,
Macmillan, 1983

Pindyck, R.S., and D.L. Rubinfeld
ECONOMETRIC MODELS AND ECONOMIC FORECASTS, 4th Edition,

Round, D.K., and A.J. Arnold
ECONOMIC AND BUSINESS STATISTICS PRACTICAL APPLICATIONS
WITH MINITAB AND SAS,
Harper & Row, 1988

Schroeder, L.D., D.L. Sjoquist and P.E. Stephan
UNDERSTANDING REGRESSION ANALYSIS: AN INTRODUCTORY
GUIDE,
Sage Publications, 1986
8. Other Entry-Level and Intermediate-Level Econometric Text-books

Students who are majoring in Economics, Applied Econometrics or Applied Finance, or who are considering a major in these areas, may find the following recently published books useful:

Gujarati, D.N.
BASIC ECONOMETRICS, 4th Edition,

Koop, G.
ANALYSIS OF ECONOMIC DATA, 2nd Edition,
Wiley, 2005

Heij, C., P. de Boer, P.H. Franses, T. Kloek and H.K. van Dijk
ECONOMETRIC METHODS WITH APPLICATIONS IN BUSINESS AND ECONOMICS, Oxford University Press, 2004
9. Learning Outcomes

All academic programs at Macquarie University seek to assist students develop generic skills in a range of areas. One of the aims of ECON241 is to assist students develop skills in numeracy, information technology, critical analysis and problem solving.

10. Teaching, Learning and Assessment Strategy

The purpose of the final examination for ECON241 is to assess each student’s understanding of the concepts and procedures discussed in lectures and tutorials.

A major aim of the within-semester assessment in ECON241 is to encourage and develop in students the capacity for self-motivated and self-directed learning.
11. Class Arrangements

It is strongly recommend that students enrolled in ECON241 attend lectures and tutorials. There are twenty-six hours of lectures (i.e. two hours each week), 10 one-hour tutorial classes, and a one-hour computing practical (mainly for students who have not previously used EcStat. or who need to revise the use of EcStat).

Lectures

<table>
<thead>
<tr>
<th>Evening Stream</th>
<th>Day Stream</th>
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</thead>
<tbody>
<tr>
<td>Monday 6 – 8 pm, E7B, Mason Theatre</td>
<td>Tuesday 2 – 4 pm, W5A, Price Theatre</td>
</tr>
</tbody>
</table>

Tutorial Classes

Weeks 2 – 13, except weeks 4 and 8

Computing Practical

Week 4

The class timetable is on the University web site at: [http://www.timetables.mq.edu.au](http://www.timetables.mq.edu.au)

Lectures, tutorials and computing practicals commence at 5 minutes past the hour and end at 5 minutes to the hour.

The twenty-six hours of formal lectures will be available from i-Lecture. In addition, students will also be able to access detailed discussions of aspects of the lecture topics via ‘talking’ Power Point slides which will be posted on Blackboard.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Tutorial Exercise</th>
<th>Tutorial Class</th>
<th>Computing Exercise</th>
<th>Computing Practical</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>February 22 – 26</td>
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<tr>
<td>2</td>
<td>March 1 – 5</td>
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<td>3</td>
<td>March 8 – 12</td>
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<td>4</td>
<td>March 15 – 19</td>
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<tr>
<td>5</td>
<td>March 22 – 26</td>
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<tr>
<td>6</td>
<td>March 29 – April 1</td>
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<td>7</td>
<td>April 19 – 23</td>
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<td>8</td>
<td>April 27 – 30</td>
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<tr>
<td>9</td>
<td>May 3 – 7</td>
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<tr>
<td>10</td>
<td>May 10 – 14</td>
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<tr>
<td>11</td>
<td>May 17 – 21</td>
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<tr>
<td>12</td>
<td>May 24 – 28</td>
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<tr>
<td>13</td>
<td>May 31 – June 4</td>
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</tr>
</tbody>
</table>

April 6 – 16 Mid-Semester Recess

March 2: Easter Friday public holiday (Week 7)
March 5: Easter Monday public holiday (Mid-Semester Recess)
April 26: Anzac Day public holiday (Week 8)
June 14: Queen's Birthday public holiday (Examination Period)
12. Prerequisite Revision Topics

Measures of Central Location in Populations and Samples
Measures of Variability in Populations and Samples
Summation Notation
Mathematical Expectation
The Relative Frequency definition of Probability
The Normal Distribution
The t-distribution
Sampling Distributions
Basic procedures in statistical inference
Type I and Type II errors
The Power of a Test
Properties of Estimators: Unbiasedness and Efficiency

13. Lecture Program

A full list of the lecture topics for ECON241 is provided on the next page.

Week 1  Introduction, Topics 1, 2 & 3
Week 2  Topics 4 & 5
Week 3  Topic 6
Week 4  Topics 7 & 9
Week 5  Topics 11 & 12
Week 6  Topics 15
Week 7  Topics 13 & 14
Week 8  Topics 17 (Examples 1 & 3), 18 & 19
Week 9  Topics 20, 21 & 22
Week 10  Topics 23 & 24
Week 11  Topics 25, 16 & 17 (Example 2)
Week 12  Revision Examples
Week 13  Exam Briefing

Topic 8 will be dealt with in the Computing Practical in Week 4.
Aspects of Topic 10 will be discussed in the relevant lectures in Weeks 5 to 11.

NOTE: Because of the Anzac Day Public holiday, there will be no lecture on
Monday 26th April from 6 till 8 pm. To replace these two lost hours of lectures, an
additional lecture hour has been scheduled from 8 till 9 pm on each of Monday
19th April and Monday 3rd May in Weeks 7 and 9 respectively. That is, in Weeks 7
and 9 there will be a three-hour lecture in E7B (Mason Theatre) on Monday from
6 pm till 9 pm. For the Day Stream, the usual two-hour lecture will be held in
W5A (Price Theatre) on Tuesday from 2 pm till 4pm in Weeks 7, 8 and 9.
### 14. Lecture Topics

<table>
<thead>
<tr>
<th>TOPIC 1</th>
<th>Basic Statistical Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOPIC 1B</td>
<td>Basic Mathematical Concepts and Procedures</td>
</tr>
<tr>
<td>TOPIC 2</td>
<td>Confidence Interval Estimation</td>
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<tr>
<td>TOPIC 3</td>
<td>Hypothesis Testing</td>
</tr>
<tr>
<td>TOPIC 4</td>
<td>Mathematical Expectation</td>
</tr>
<tr>
<td>TOPIC 5</td>
<td>Desirable Properties of Estimators</td>
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<tr>
<td>TOPIC 6</td>
<td>Two-Variable Regression Analysis</td>
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<tr>
<td></td>
<td>The Model and Assumptions</td>
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<td></td>
<td>Estimation of the Two Variable Regression Model</td>
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<tr>
<td>TOPIC 7</td>
<td>Statistical Inference and Prediction in Regression Analysis</td>
</tr>
<tr>
<td>TOPIC 8</td>
<td>Computing in ECON241 – Getting Started with ECSTAT</td>
</tr>
<tr>
<td>TOPIC 9</td>
<td>An example of Regression Analysis using ECSTAT</td>
</tr>
<tr>
<td>TOPIC 10</td>
<td>Additional Computing Procedures using ECSTAT</td>
</tr>
<tr>
<td>TOPIC 11</td>
<td>Non-Linearities in Regression Models</td>
</tr>
<tr>
<td>TOPIC 12</td>
<td>An example of Non-Linearity using ECSTAT</td>
</tr>
<tr>
<td>TOPIC 13</td>
<td>Correlation and Regression</td>
</tr>
<tr>
<td>TOPIC 14</td>
<td>ANOVA in the Two-Variable Regression Model</td>
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<td></td>
<td>F tables</td>
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<tr>
<td>TOPIC 15</td>
<td>Multiple Regression Analysis</td>
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<tr>
<td></td>
<td>The Model and Assumptions</td>
</tr>
<tr>
<td></td>
<td>Estimation and Statistical Inference</td>
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<tr>
<td>TOPIC 16</td>
<td>Structural Change in Regression Models</td>
</tr>
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<td></td>
<td>Dummy Variables in Regression Models</td>
</tr>
<tr>
<td>TOPIC 17</td>
<td>Polynomial Regression Models</td>
</tr>
<tr>
<td></td>
<td>Examples of Multiple Regression using ECSTAT</td>
</tr>
<tr>
<td>TOPIC 18</td>
<td>ANOVA in Multiple Regression Models</td>
</tr>
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<td></td>
<td>Appendix: Interpolation using the F tables</td>
</tr>
<tr>
<td>TOPIC 19</td>
<td>Heteroscedasticity</td>
</tr>
<tr>
<td>TOPIC 20</td>
<td>Autocorrelation</td>
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<tr>
<td>TOPIC 21</td>
<td>The Durbin-Watson Test</td>
</tr>
<tr>
<td></td>
<td>DW Tables</td>
</tr>
<tr>
<td>TOPIC 22</td>
<td>Examples of Autocorrelation using ECSTAT</td>
</tr>
<tr>
<td></td>
<td>Appendix: Interpolation using the DW tables</td>
</tr>
<tr>
<td>TOPIC 23</td>
<td>Multicollinearity</td>
</tr>
<tr>
<td>TOPIC 24</td>
<td>Specification Error</td>
</tr>
<tr>
<td>TOPIC 25</td>
<td>Examples of Specification Error using ECSTAT</td>
</tr>
<tr>
<td>TOPIC 26</td>
<td>Seasonality in Regression Analysis</td>
</tr>
</tbody>
</table>

Text-book references for these topics, as well as references from previous text-books, are provided in Appendix (2).

**NOTE:** Topic 1B: Basic Mathematical Concepts and Procedures, will not be discussed in the Lecture Program in the first semester, 2010, and is not examinable. It is provided to assist students revise, if necessary, material from HSC 2 Unit Mathematics that is assumed knowledge for the unit.

**NOTE:** Topic 26, Seasonality in Regression Analysis, will not be discussed in the Lecture Program in the First Semester, 2010, and is not examinable.
15. Tutorial Exercises, Computing Exercises, Classes & Labs

**Tutorial exercises commence in Week 1.** Students are required to attempt tutorial and/or computing exercises each week from Week 1 to Week 13, inclusive, except for Week 8. (There are no tutorials in Week 8 because of the Anzac Day Public holiday.) From Week 6 the tutorial exercises are based on computing exercises which must be completed before the tutorial exercise can be attempted.

**Tutorial classes commence in Week 2.** Tutorial classes continue in Week 3, followed in Week 4 by a Computing Practical.

**Computing Practicals replace tutorial classes in Week 4 only.** Computing Practical groups are exactly the same as Tutorial Groups. Locations for the Computing Practicals will be advised on the ECON241 Blackboard web site.

After Week 4, tutorial classes continue in Weeks 5 – 13 (inclusive), except for Week 8.

**NOTE:** There are no tutorial classes or computing practicals in Week 1.

Although there are no tutorial classes in Week 1, students should note that tutorial exercises have been set for Week 1. These exercises revise essential aspects of the (STAT170) statistical prerequisite material for the unit. They are an important part of the tutorial program and should not be neglected simply because there are no tutorial classes in that week. Students are expected to be able to complete the tutorial exercises set for Week 1 without assistance from staff. The solutions for these exercises will be placed on e-Reserve in the library, and on the ECON241 Blackboard web site. Students may discuss any issues or difficulties arising from these exercises with staff during staff consultation hours. A list of times and locations for staff consultation hours will be posted on the ECON241 web-site on Blackboard.

Students should attempt as many exercises as possible before attending their tutorial classes so that they can more effectively benefit from the discussion. It is important that students be in a position when they attend tutorial classes to indicate which aspects of the exercises should be given priority.

Details of the Tutorial and Computing Practical Exercises are provided in a separate document. They can also be accessed on the ECON241 Blackboard web site. Detailed tutorial solutions will be available on the ECON241 Blackboard web site, and on e-Reserve, on the Friday following the relevant tutorial.

**Students are strongly advised to attend tutorials.** The best advice that can be given to an ECON241 student is to attend lectures and tutorials, and to attempt the tutorial exercises before attending tutorials and before looking at the solutions on e-Reserve or on the ECON241 Blackboard web site.
16. Assessment

NOTE

It is the policy of the Economics Department that students enrolled in a unit offered by the Economics Department must pass the End-of-Semester (Final) Examination to pass the unit.

Students who do not attend the End-of-Semester (Final) Examination will be given a grade of FA for the unit.

Grades in ECON241 (S1, 2010) will be based on a combination, chosen by the student, of the End-of-Semester (Final) Examination, and two formal, supervised assessable Within-Semester Examinations.

Students can elect to be assessed for ECON241 using one of the following four sets of weights:

A:  
Within-Semester Examination One  20%  
Within-Semester Examination Two  20%  
End-of-Semester (Final) Examination  60%

B:  
Within-Semester Examination One  0%  
Within-Semester Examination Two  20%  
End-of-Semester (Final) Examination  80%

C:  
Within-Semester Examination One  20%  
Within-Semester Examination Two  0%  
End-of-Semester (Final) Examination  80%

D:  
Within-Semester Examination One  0%  
Within-Semester Examination Two  0%  
End-of-Semester (Final) Examination  100%

NOTE:

Each student must include the End-of-Semester (Final) Examination in the set of alternatives A, B, C or D that they choose to determine their final grade in ECON241.

Each student can elect to have a weight for the End-of-Semester (Final) Examination in their final grade for ECON241 of 60%, 80% or 100%.
Students can elect to include both of the assessable Within-Semester Examinations in the combination used to determine their final grade, or only one, or neither.

Each of the two assessable Within-Semester Examinations will have a weight of either 20% or 0% in each student’s final grade.

At least one of the two assessable Within-Semester Examinations will examine the computing aspects of the unit, and will require students to use EcStat to generate the necessary computer output required for their answers.

**ASSESSABLE WITHIN-SEMESTER EXAMINATION DATES**

The first assessable Within-Semester Examination will be held in Computer Labs in Week 8 on Friday 30\textsuperscript{th} April or Saturday 1\textsuperscript{st} May. Further details to be advised.

The second assessable Within-Semester Examination will be held in Computer Labs in Week 12 on Friday 28\textsuperscript{st} May or Saturday 29th May. Further details to be advised.

Students who wish to elect to include one or both of these two assessable Within-Semester Examinations in the combination on which their grade for ECON241 will be determined, must ensure that they are able to attend the examinations on these dates.
17. Optional Practice Assessment

NOTE: All of the components of Optional Practice Assessment discussed on the next two pages have a weight of zero% in the final grade for ECON241.

That is, the Optional Online Test of Revision Material, the Optional Take-Home Assignment, and the two Optional Online Within-Semester Examinations all have a weight of zero% in the final grade for ECON241.

There are two types of optional practice assessment in ECON241: an optional self-assessment component, and an optional objective component.

18. Optional Within-Semester Self Assessment

The optional within-semester self-assessment component consists of a series of Supplementary and Revision Exercises which students may work through in their own time, and which students mark themselves. Details of the Supplementary and Revision Exercises are provided in a separate handout. They can also be accessed from the ECON241 Blackboard web site.

Detailed solutions for the Supplementary and Revision Exercises will be available on e-Reserve in the Library, and on the ECON241 Blackboard web site.

The purpose of the Supplementary and Revision Exercises is to enable students to judge for themselves how well they understand the lecture and tutorial material. The Supplementary and Revision Exercises are an extensive and exhaustive set of exercises. Many of the exercises are repetitive. It is not intended that students work through all of the Supplementary & Revision exercises. Students should use these exercises to the extent that they believe they need additional practice, repetition and reinforcement in using the techniques and procedures discussed in the ECON241 lectures and tutorials, and in interpreting the results.
19. **Optional Within-Semester Objective Practice Assessment**

The optional within-semester objective component consists of:

(a) an optional Online Test of Revision Material  
(b) an optional Take-Home Mid-Semester Assignment  
(c) two optional Online Within-Semester Examinations

These three aspects of the assessment are entirely optional in the sense that students must decide for themselves whether they submit the Test of Revision Material, submit the Assignment, submit the two Within-Semester Examinations, or do none of these. If students elect to submit the Test, submit the Assignment or submit the two Within-Semester Examinations, their work will be marked objectively. The Test and the two Within-Semester Examinations will be submitted and marked electronically on Blackboard. The Assignment will be marked by staff and returned to students.

The purpose of these three optional aspects of the within semester assessment is to enable students to obtain an objective measure of how well they have understood the material covered in the relevant sections of the lecture and tutorial program.

20. **Optional Online Test of Revision Material**

Distribution to students: Blackboard, Week 4, Tuesday 16th March.  
Blackboard online submission deadline: Sunday 21st March, 11:55 pm.

21. **Optional Take-Home Mid-Semester Practice Assignment**

Distribution to students: Blackboards, Week 6, Tuesday 30th March.  
Submission deadline: BESS, Week 7, Friday 23rd April, 4:30 pm.

The Assignment must be placed in the ECON241 box at the FBE student services centre (BESS), E4B-106. After-hours submissions may be placed in the BESS after-hours box. Do **not** submit assignments directly to the lecturer or to tutors. Do **not** submit assignments under the lecturer’s door or under a tutor’s door. Even if your assignment is late it must be submitted via BESS, in BESS’s after-hours box, or directly to the counter staff in BESS.

22. **Two Optional Online Within-Semester Practice Examinations**

**First Online Within-Semester Practice Examination**

Distribution to students: Blackboard, Week 8, Tuesday 27th April.  
Blackboard online submission deadline: Sunday 2nd May, 11:55 pm

**Second Online Within-Semester Practice Examination**

Distribution to students: Blackboard, Week 12, Tuesday 25th May.  
Blackboard online submission deadline: Sunday 30th May, 11:55 pm
23. **Compulsory End-of-Semester (Final) Examination**

The final component of assessment is compulsory. It is the End-of-Semester (Final) Examination. All students enrolled in ECON241 are required to attend the End-of-Semester (Final) Examination. The purpose of the End-of-Semester Examination is to objectively assess each student’s overall understanding of the procedures discussed in ECON241, their overall level of competence in implementing those procedures and their overall level of competence in interpreting results obtained using those procedures.

24. **Format of the End-of-Semester Compulsory Examination**

The End-of-Semester Examination will have two sections: a multiple choice section, worth 40 marks, and a written-answer section, worth 60 marks. In the first section there will be 40 questions, each worth 1 mark. In the second section there will be 10 questions, each worth 6 marks, requiring short written answers.

The examinable content for the End-of-Semester examination consists of all the material discussed in lectures and tutorials from Weeks 1 – 13 (inclusive) except those tasks directly related to obtaining ECSTAT computing output. ECSTAT computing procedures are not examinable in the End-of-Semester Examination. However, students are required to be able to identify, summarise and discuss ECSTAT computer output.

25. **Formulae Sheet**

A formulae sheet will be provided to students in the End-of-Semester (Final) Examination. A copy of the formulae sheet will available on the ECON241 Blackboard web site for inspection by students at least two weeks prior to the examination.

26. **Calculators**

Some numerical calculations will be required in the End-of-Semester Examination. A basic calculator is all that will be required to carry out these calculations. Students will be permitted to take **non-programmable calculators only** into the ECON241 End-of-Semester (Final) Examination. A calculator is non-programmable if it does not have memory, or if it is capable of storing only numerical data in memory. Calculators that are capable of storing alphabetic characters in memory will **NOT** be permitted in the ECON241 End-of-Semester (Final) Examination.
27. Supplementary Assessment

Students who are prevented by circumstances beyond their control from attending the End-of-Semester Examination, or whose performance in the examination is affected by circumstances beyond their control, may submit a request for special consideration to be allowed to sit for a Supplementary End-of-Semester (Final) Examination, or to have these circumstances taken into account in determining the student’s grade. (See Section 27 on Special Consideration.)

Students will also be able to request special consideration for the within-semester components of assessment. However, students will not be able to request permission to submit a Supplementary or Deferred Test of Revision Material, or to sit for Supplementary or Deferred Within-Semester Examination. Students who are unable to attend a Within-Semester Examination, or whose performance in a Within-Semester Examination is affected by circumstances beyond their control may request that the Within Semester Examination have a weight of zero, and that the Weight of the End-of-Semester (Final) Examination be increased by 20%.

28. Special Consideration

The rules and procedures governing Special Consideration are set out on page 520 of the Macquarie University 2010 Handbook of Undergraduate Studies. It is the responsibility of all students enrolled in ECON241 to ensure that they have read and understand the rules and procedures governing Special Consideration.

Note: The University Senate has determined that minor illnesses are NOT sufficient grounds for being granted special consideration.

Note: The University Senate has determined that students in a unit will not be granted special consideration if their coursework for that unit is unsatisfactory, or if their participation in the unit is unsatisfactory.

In ECON241, results in the Optional Online Test of Revision Material, the Optional Take-Home Mid-Semester Assignment, and the Optional Online Within-Semester Examinations and/or the two assessable Within-Semester Examinations will be used as an indicator of the extent to which a student’s coursework and participation in the unit can be deemed satisfactory.

29. Attendance at Lectures and Tutorials

Attendance at Lectures and Tutorials is not compulsory, but is strongly recommended. Absence from Lectures and Tutorials, and in particular, neglect of the tutorial program and repeated failure to attempt tutorial exercises each week, is a Fail-Safe formula for obtaining a Fail grade in ECON241.
30. University Policy on Examination Attendance

Students are expected to attend the End-of-Semester 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. The Draft and Final Examination Timetable will be available at: 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 a student may apply for Special Consideration. Information about unavoidable disruption and the Special Consideration process is available on page 520 of the Macquarie University 2010 Handbook of Undergraduate Studies, on the FBE web-site, and at: http://www.reg.mq.edu.au/Forms/APScons.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. Supplementary examinations conducted by the Faculty of Business and Economics for first semester units are normally scheduled during the period between the release of the examination grades and the start of the second semester.

It is Macquarie University policy not to set special early examinations for particular individuals or groups of students. All students are expected to ensure that they are available for examinations until the end of the teaching semester; that is, until the final day of the official examination period.

If a student is granted a Supplementary Examination but does not attend the examination on the scheduled date, the student will be given a grade of FA for the unit.

31. University Policy on Appeals by Students Against Grades

The rules and procedures governing Appeals by Students Against Grades are set out on page 521 of the Macquarie University 2010 Handbook of Undergraduate Studies, and on the FBE web site. It is the responsibility of all students enrolled in ECON241 to ensure that they have read and understand the rules and procedures governing Appeals by Students Against Grades.
32. Lecturer-In-Charge

Roger Tonkin  E4A-408  Ph: 9850-8494  
email:  roger.tonkin@mq.edu.au

33. Teaching Assistant, and Web-Master

Julian Inchauspe  E4A-420  Ph: 9850-8495  
email:  jinchaus@efs.mq.edu.au

34. Other ECON241 Staff

A list of room numbers, University phone numbers and email addresses for other full-time staff teaching in ECON241 will be provided to students on the ECON241 Blackboard web site as soon as the teaching arrangements have been finalised.

35. Staff Consultation Hours.

Students are encouraged to consult the teaching staff of ECON241 on all matters relating to the unit, particularly issues or difficulties arising from the lecture and tutorial content, during staff consultation hours. Details of the ECON241 staff consultation hours will be posted the ECON241 Blackboard web site. (Note: Staff Consultation hours may be subject to change at short notice.

36. After-Hours Consultation

Part-time and evening students may contact the Lecturer-in-Charge, Roger Tonkin, to arrange a suitable time for an appointment outside the scheduled staff consultation hours, particularly after 5 pm if consultation before 5 pm is not possible because of employment, etc.

Roger Tonkin  
Unit Convenor  
21st February, 2010
APPENDICES

(1) Greek Alphabet
(2) References
(3) Standardised Numerical Grades (SNGs)
(4) Plagiarism
(5) Student Support Services
(6) Ten Key Points in a Strategy for Surviving and Passing ECON241
APPENDIX (1): GREEK ALPHABET

Listed below are the upper and lower case letters of the Greek alphabet and their names. Greek symbols are used extensively in the discussion of econometric methods.

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APPENDIX (2): TEXT-BOOK REFERENCES

A detailed list of references for ECON241 from the current text-book, and two previous editions of the text-book, is provided below, supplemented, where necessary, with references from two much earlier text-books written by Harrison & Tamaschke. The sources for these references are:

Gujarati, D.  
ESSENTIALS OF ECONOMETRICS  
**Fourth Edition**  
Irwin/McGraw-Hill, 2010

Gujarati, D.  
ESSENTIALS OF ECONOMETRICS  
**Third Edition**  
Irwin/McGraw-Hill, 2006

Gujarati, D.  
ESSENTIALS OF ECONOMETRICS  
**Second Edition**  
Irwin/McGraw-Hill, 1999

Harrison S.R. and H.U. Tamaschke  
APPLIED STATISTICAL ANALYSIS  
Prentice-Hall, 1984

Harrison, S.R. and Tamaschke R. H. V.  
STATISTICS FOR BUSINESS, ECONOMICS AND MANAGEMENT  
Prentice-Hall, 1993

Unless stated otherwise, the references below are from Gujarati, **Fourth Edition**, 2010.

INTRODUCTION  
Chapter 1, pages 1-5

**TOPIC 1 - BASIC STATISTICAL CONCEPTS**  
Appendix A, Sections A.1 - A.5  
(Omit Bayes' Theorem, page 416)  
Appendix B, Section b.7  
Appendix C, Sections C.1 - C.2

**TOPIC 2 - ESTIMATION**  
Appendix B, Sections B.1 - B.3

**TOPIC 3 - HYPOTHESIS TESTING**  
Appendix D, Section D.5
TOPIC 4 - MATHEMATICAL EXPECTATION
   Appendix B, Sections B.1 - B.4
   (Omit Chebyshev's Inequality, page 441)
   (Omit Coefficient of Variation, page 442)

TOPIC 5 - PROPERTIES OF ESTIMATORS
   Appendix D, Section D.4
   (Omit Consistency, pages 497-498)

TOPIC 6 - TWO-VARIABLE LINEAR REGRESSION ANALYSIS
   Chapter 1, Sections 1 - 3
   Chapter 2, Sections 1 - 5, and 8 - 11
   Chapter 3, Sections 3.1 and 3.3

TOPIC 7 - STATISTICAL INFERENCE IN TWO-VARIABLE LINEAR
   REGRESSION
   Chapter 3, Sections 3.2, 3.4, 3.5, 3.7 - 3.8, and 3.10 - 3.12

TOPIC 9 - See TOPICS 6 & 7

TOPICS 11 & 12 - NONLINEAR RELATIONSHIPS
   Chapter 2, Section 6
   Chapter 5, Sections 1 - 2 and 4 - 5
   Chapter 5, Appendix 5A

TOPICS 13 & 14 - THE ANALYSIS OF VARIANCE IN THE TWO-
   VARIABLE LINEAR REGRESSION MODEL

   Appendix B, Sections 3, 4, and 7
   (Omit Sample Skewness and Kurtosis, page 456)
   Chapter C, Section 4
   Chapter 3, Section 6

NOTE:
A basic understanding of the concept of Covariance is essential for a full
understanding of Correlation (in both Populations and Samples).

Similarly, a basic familiarity with the relationship between Chi-Square
distributions and the F distribution is essential for a full appreciation of the
theoretical features and construction of F distributions.

Covariance, and the Chi-Square distribution, are not examinable in ECON241.

Specific text-book references for the Analysis of Variance in Linear Regression
models are provided with the references for TOPIC 15 and TOPIC 18.
ADDITIONAL REFERENCES FOR TOPICS 13 & 14 - THE ANALYSIS OF VARIANCE IN THE TWO VARIABLE REGRESSION MODEL

Chapter 12, Section 5.4, and Sections 7-9

TOPIC 15 - MULTIPLE REGRESSION ANALYSIS
Chapter 1, Section 3
Chapter 2, Section 7
Chapter 4, Sections 1 - 8, and Section 13
(Omit equations 8.17 - 8.25, 8.27 - 8.28, and 8.31)

ANOVA IN MULTIPLE REGRESSION – See TOPIC 18

TOPIC 16 - QUALITATIVE VARIABLES IN MULTIPLE REGRESSION ANALYSIS
Chapter 2, Sections 1 - 5

TOPIC 17 - POLYNOMIAL REGRESSION MODELS
Chapter 5, Section 7

TOPIC 18 - ANOVA IN MULTIPLE REGRESSION MODELS
Chapter 4, Section 4 and Section 8

ADDITIONAL REFERENCES FOR TOPICS 15 & 18 - ANOVA IN MULTIPLE REGRESSION ANALYSIS

Chapter 13, Section 6

Chapter 10, Sections 1, 2, 3 and 4

TOPIC 19 - HETEROSCEDASTICITY
Chapter 9, Section 1, Section 2 and pages 399-402 of Section 3
(Omit the Park Test)
TOPIC 20 - AUTOCORRELATION
   Chapter 10, Section 1 and Section 2

TOPICS 21 - THE DURBIN-WATSON TEST FOR FIRST-ORDER AUTOCORRELATION
   Chapter 10, Sections 3, 4 and 6
   (Omit The First Difference Method, pages 327)

TOPIC 22 - See TOPICS 20 & 21

TOPIC 23 - MULTICOLLINEARITY
   Chapter 8, Sections 1 - 9
   (Omit Subsidiary, or Auxiliary, Regressions, page 255)
   (Omit the Variance Inflation Factor, VIF, page 256)

TOPICS 24 & 25 - SPECIFICATION ERROR IN REGRESSION ANALYSIS
   Chapter 4, Section 9
   Chapter 7, Sections 2 - 5, Section 7 and Section 8
   (Omit the MWD Test, pages 235)
   Chapter 10, Section 1, page 315 (Model Specification Errors)

TOPIC 26 - MODELLING SEASONAL EFFECTS USING DUMMY VARIABLES
   Chapter 6, Section 6

   DUMMY VARIABLE TRAP
   Chapter 6, Section 6.1, page 183
A detailed list of references for ECON241 from the third editon of the text-book is provided below, supplemented, where necessary, with references from two previous text-books written by Harrison & Tamaschke. The sources for these references are:

Gujarati, D.
ESSENTIALS OF ECONOMETRICS
Third Edition
Irwin/McGraw-Hill, 2006

Harrison S.R. and H.U. Tamaschke
APPLIED STATISTICAL ANALYSIS
Prentice-Hall, 1984

Harrison, S.R. and Tamaschke R. H. V.
STATISTICS FOR BUSINESS, ECONOMICS AND MANAGEMENT
Prentice-Hall, 1993

Unless stated otherwise, the references below are from Gujarati, Third Edition, 2006.

INTRODUCTION
Chapter 1, pages 1-5

TOPIC 1 - BASIC STATISTICAL CONCEPTS
Chapter 2, Sections 2.1 - 2.5
(Omit Bayes' Theorem, page 32)
Chapter 3, Section 3.7
Chapter 4, Sections 4.1 - 4.2

TOPIC 2 - ESTIMATION
Chapter 5, Sections 5.1 - 5.3

TOPIC 3 - HYPOTHESIS TESTING
Chapter 5, Section 5.5

TOPIC 4 - MATHEMATICAL EXPECTATION
Chapter 3, Sections 3.1 - 3.4
(Omit Chebyshev's Inequality, page 57)
(Omit Coefficient of Variation, page 58)

TOPIC 5 - PROPERTIES OF ESTIMATORS
Chapter 5, Section 5.4
(Omit Consistency, pages 113-114)
**TOPIC 6 - TWO-VARIABLE LINEAR REGRESSION ANALYSIS**
Chapter 1, Sections 1 - 3  
Chapter 6, Sections 1 - 5, and 8 - 11  
Chapter 7, Sections 7.1 and 7.3

**TOPIC 7 - STATISTICAL INFEERENCE IN TWO-VARIABLE LINEAR REGRESSION**
Chapter 7, Sections 7.2, 7.4, 7.5, 7.7 - 7.8, and 7.10 - 7.12

**TOPIC 9 - See TOPICS 6 & 7**

**TOPICS 11 & 12 - NONLINEAR RELATIONSHIPS**
Chapter 6, Section 6  
Chapter 9, Sections 1 - 2 and 4 - 5  
Chapter 9, Appendix 9A

**TOPICS 13 & 14 - THE ANALYSIS OF VARIANCE IN THE TWO-VARIABLE LINEAR REGRESSION MODEL**
Chapter 3, Sections 3, 4, and 7  
(Omit Sample Skewness and Kurtosis, page 72)  
Chapter 4, Section 4  
Chapter 7, Section 6

**NOTE:**
A basic understanding of the concept of Covariance is essential for a full understanding of Correlation (in both Populations and Samples).

Similarly, a basic familiarity with the relationship between Chi-Square distributions and the F distribution is essential for a full appreciation of the theoretical features and construction of F distributions.

Covariance, and the Chi-Square distribution, are not examinable in ECON241.

Specific text-book references for the Analysis of Variance in Linear Regression models are provided with the references for TOPIC 15 and TOPIC 18.

**ADDITIONAL REFERENCES FOR TOPICS 13 & 14 - THE ANALYSIS OF VARIANCE IN THE TWO VARIABLE REGRESSION MODEL**
Chapter 12, Section 5.4, and Sections 7-9
TOPIC 15 - MULTIPLE REGRESSION ANALYSIS
   Chapter 1, Section 3
   Chapter 6, Section 7
   Chapter 8, Sections 1 - 8, and Section 13
   (Omit equations 8.17 - 8.25, 8.27 - 8.28, and 8.31)

   ANOVA IN MULTIPLE REGRESSION – See TOPIC 18

TOPIC 16 - QUALITATIVE VARIABLES IN MULTIPLE REGRESSION ANALYSIS
   Chapter 10, Sections 1 - 5

TOPIC 17 - POLYNOMIAL REGRESSION MODELS
   Chapter 9, Section 7

TOPIC 18 - ANOVA IN MULTIPLE REGRESSION MODELS
   Chapter 8, Section 4 and Section 8

ADDITIONAL REFERENCES FOR TOPICS 15 & 18 - ANOVA IN MULTIPLE REGRESSION ANALYSIS
   Harrison S.R. and H.U. Tamaschke, APPLIED STATISTICAL ANALYSIS,
   Prentice-Hall, 1984
   Chapter 13, Section 6
   Harrison S.R. and R.H.U. Tamaschke, STATISTICS FOR BUSINESS,
   ECONOMICS AND MANAGEMENT, Prentice-Hall, 1993
   Chapter 10, Sections 1, 2, 3 and 4

TOPIC 19 - HETEROSCEDASTICITY
   Chapter 13, Section 1, Section 2 and pages 399-402 of Section 3
   (Omit the Park Test)

TOPIC 20 - AUTOCORRELATION
   Chapter 14, Section 1 and Section 2

TOPICS 21 - THE DURBIN-WATSON TEST FOR FIRST-ORDER AUTOCORRELATION
   Chapter 14, Sections 3, 4 and 6
   (Omit The First Difference Method, pages 442-443)

TOPIC 22 - See TOPICS 20 & 21
TOPIC 23 - MULTICOLLINEARITY
Chapter 12, Sections 1 - 9
(Omit Subsidiary, or Auxiliary, Regressions, page 373)
(Omit the Variance Inflation Factor, VIF, page 374)

TOPICS 24 & 25 - SPECIFICATION ERROR IN REGRESSION ANALYSIS
Chapter 8, Section 9
Chapter 11, Sections 2 - 5, Section 7 and Section 8
(Omit the MWD Test, pages 353-353)
Chapter 14, Section 1, page 430 (Model Specification Errors)

TOPIC 26 - MODELLING SEASONAL EFFECTS USING DUMMY VARIABLES
Chapter 10, Section 6

DUMMY VARIABLE TRAP
Chapter 10, Section 10.1, page 295

APPENDIX (2) CONTINUED: OTHER REFERENCES

A detailed list of references for ECON241 is given in the tables on the next two pages. The two sources for these references are the second edition of the current text-book written by Gujarati, and a previous text-book, written by Harrison and Tamaschke:

Gujarati, D.
ESSENTIALS OF ECONOMETRICS
Second Edition
Irwin/McGraw-Hill, 1999

Harrison, S.R. and Tamaschke R. H. V.
STATISTICS FOR BUSINESS, ECONOMICS AND MANAGEMENT
Prentice-Hall, 1993
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<th>Reference in Harrison &amp; Tamaschke</th>
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<tr>
<td>4. Probability distribution of the LS estimators</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>5. Interval estimation</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td><strong>Hypothesis Testing in the Multiple Regression Model</strong></td>
<td>7.6, 7.7</td>
<td>10.3</td>
</tr>
<tr>
<td>1. Student t-tests</td>
<td>7.5</td>
<td>10.5</td>
</tr>
<tr>
<td>2. Goodness-of-Fit</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>3. F-Tests</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>4. ANOVA Table</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>5. Non linear functional forms: log-log and polynomial Models</td>
<td>8.1, 8.2, 8.3, 8.7</td>
<td></td>
</tr>
<tr>
<td>6. Prediction</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Multicollinearity</strong></td>
<td>10.1, 10.2</td>
<td>10.6</td>
</tr>
<tr>
<td>1. The nature of multicollinearity</td>
<td>10.1, 10.2</td>
<td></td>
</tr>
<tr>
<td>2. Effects of multicollinearity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Identifying multicollinearity</td>
<td>10.3, 10.4</td>
<td></td>
</tr>
<tr>
<td>4. Mitigating multicollinearity</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td><strong>Dummy Variables</strong></td>
<td>10.8</td>
<td></td>
</tr>
<tr>
<td>1. Intercept Dummy Variables</td>
<td>9.1, 9.2</td>
<td>10.4</td>
</tr>
<tr>
<td>2. Slope Dummy Variables</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>3. Different Intercepts &amp; Slopes</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>4. Testing for the existence of a qualitative effect.</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>5. Testing for a structural break</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>6. Seasonal Dummy variables</td>
<td>9.6, 9.7</td>
<td></td>
</tr>
<tr>
<td><strong>Heteroscedasticity</strong></td>
<td>11.1</td>
<td>10.7.2</td>
</tr>
<tr>
<td>1. The nature of heteroscedasticity</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>2. The consequences of heteroscedasticity</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td><strong>Autocorrelation</strong></td>
<td>12.1</td>
<td>10.7.1</td>
</tr>
<tr>
<td>1. The nature of autocorrelation</td>
<td>12.2</td>
<td></td>
</tr>
<tr>
<td>2. The consequences of autocorrelation</td>
<td>12.3</td>
<td></td>
</tr>
<tr>
<td><strong>Model Specification</strong></td>
<td>13.1</td>
<td></td>
</tr>
<tr>
<td>1. Formulating a Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attributes of a Good Model</td>
<td>13.1</td>
<td></td>
</tr>
<tr>
<td>3. Types of Specification Errors</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>4. Detecting Specification Errors</td>
<td>13.3</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX (3): STANDARDISED NUMERICAL GRADES

Other than in exceptional circumstances, the SNG for a student in ECON241 will be equal to the weighted sum of their raw marks in the two Within-Semester Examinations and the End-of-Semester (Final) Examination.

Your overall raw mark for a unit (i.e. the weighted sum of your marks for each assessment item) may not be the same as the SNG which you receive. Results may be scaled to ensure that students who demonstrate the same level of academic competence as students in the first semester offering of ECON141 in previous years receive similar results.

If it is deemed necessary to scale the raw marks to determine SNGs and Grades for ECON241 students, the process of scaling will not change the order of raw marks. A student who receives a higher raw mark than another will also receive a higher final scaled mark, and a higher SNG.

It is important that you realise that the University’s Assessment policy does not require that a minimum of students be failed in any unit. In fact it does the opposite, in requiring examiners to explain their actions if more than 20% of students fail in a unit.

(For an entirely unsatisfactory definition of Standard Numerical Grade see page 20 of the Macquarie University 2010 Handbook of Undergraduate Studies).
APPENDIX (4):  PLAGIARISM (ACADEMIC HONESTY)

The University defines plagiarism in its rules: ‘Plagiarism involves using the work of another person and presenting it as one’s own”. Plagiarism is a serious breach of the University’s rules and carries significant penalties. You must read the University’s warning to students and staff on plagiarism (Academic Honesty). This warning can be found on page 521 of the Macquarie University 2010 Handbook of Undergraduate Studies. Students are also required to ensure they read and understand the more detailed definition and discussion of plagiarism which can be found on the web at: http://www.student.mq.edu.au/plagiarism/

The University’s policy on plagiarism which can be found by clicking on the above link explains what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

APPENDIX (5):  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.
APPENDIX (6):

TEN KEY POINTS IN A STRATEGY FOR SURVIVING ECON241 .... AND PASSING

1. **Attend as many lectures as possible.**
2. **Attempt as many tutorial exercises as possible.**
3. **Attend as many tutorials as possible.**
4. Attempt the tutorial exercises **before** attending the relevant tutorials and **before** you inspect the answers on e-Reserve or on Blackboard.
5. If you miss a tutorial, make sure you attempt the exercises as soon as possible, and that you attempt the exercises **before** you inspect the answers on e-Reserve or on Blackboard.
6. **Attempt the Optional Within-Semester Assessment.**
7. After each tutorial, if you need additional practice exercises, attempt as many of the relevant Supplementary & Revision exercises as required until you feel you have mastered the techniques contained in those exercises.
8. Attempt the Supplementary & Revision exercises **before** you inspect the answers on e-Reserve or on Blackboard.
9. If you don’t understand the material in the tutorials, the computing practical, or the material in the Supplementary & Revision exercises, consult the ECON241 staff as soon as possible. Don’t wait till later in the semester.
10. **Keep up to date with the work.** Don’t fall into the trap of thinking you will be able to catch up with the work later.
ECON241
Introductory Econometrics
First Semester, 2010

Supplement to the Unit Outline

ASSESSMENT

This Supplement replaces Sections 16-28 on pages 12-17 of the Unit Outline.

Department of Economics
16. Assessment

NOTE

To obtain a Pass Grade and a Standardised Numerical Grade (SNG) of 50 in ECON241, students need to demonstrate: (i) a satisfactory level of understanding of the concepts and procedures discussed in lectures and tutorials, (ii) a satisfactory level of competence in implementing those procedures, and (iii) a satisfactory level of competence in analysing and interpreting the results obtained when using those procedures.

See also the discussion of SNGs in Appendix (3) on page 32 of the Unit Outline.

Grades in ECON241 (S1, 2010) will be based on a combination, chosen by the student, of the End-of-Semester (Final) Examination, and two formal, supervised, assessable Within-Semester Examinations.

Students can elect to be assessed for ECON241 using one of the following four sets of weights:

A:  First Assessable Within-Semester Examination  20%
    Second Assessable Within-Semester Examination  20%
    End-of-Semester (Final) Examination            60%

B:  First Assessable Within-Semester Examination  0%
    Second Assessable Within-Semester Examination  20%
    End-of-Semester (Final) Examination            80%

C:  First Assessable Within-Semester Examination  20%
    Second Assessable Within-Semester Examination  0%
    End-of-Semester (Final) Examination            80%

D:  First Assessable Within-Semester Examination  0%
    Second Assessable Within-Semester Examination  0%
    End-of-Semester (Final) Examination            100%

NOTE:

Each student must include the End-of-Semester (Final) Examination in the set of alternatives A, B, C or D that they choose to determine their final grade in ECON241.

Each student can elect to have a weight for the End-of-Semester (Final) Examination in their final grade for ECON241 of 60%, 80% or 100%..
Students can elect to include both of the assessable Within-Semester Examinations in the combination used to determine their final grade, or only one, or neither. Each of the two assessable Within-Semester Examinations will have a weight of 20% or 0% in each student’s final grade.

If a student attends the First Assessable Within-Semester Examination, that examination will count with a weight of 20% toward the student’s grade. If the student does not attend that examination, the examination will have weight of 0%, and the 20% weight will be transferred to the End-of-Semester (Final) Examination. Students do not need to make a decision about their choice of a weight of 20% or 0% until the day of the examination. However, as soon as a student enters the examination room, the weight of the examination for that student will be set equal to 20%. As soon as a student enters the examination room that student will NOT be able to choose to vary the weight from 20%.

If a student attends the Second Assessable Within-Semester Examination, that examination will count with a weight of 20% toward the student’s grade. If the student does not attend that examination, the examination will have weight of 0%, and the 20% weight will be transferred to the End-of-Semester (Final) Examination. Students do not need to make a decision about their choice of a weight of 20% or 0% until the day of the examination. However, as soon as a student enters the examination room, the weight of the examination for that student will be set equal to 20%. As soon as a student enters the examination room that student will NOT be able to choose to vary the weight from 20%.

Both of the two assessable Within-Semester Examinations will examine the computing aspects of the unit, and will require students to use EcStat and Excel to generate the necessary computer output and to carry out calculations required for their answers.

Format of the First Assessable Within-Semester Examination

This examination will consist of twenty (20) multiple choice questions, each worth one (1) mark. Students will be required to use EcStat and Excel to generate computer output and to carry out calculations required for their answers. Except where indicated in Mail messages and Announcements on Blackboard, the examinable content for the examination will consist of Lecture Topics 1-14, and Tutorial Exercises 1-7.

Format of the Second Assessable Within-Semester Examination

This examination will consist of twenty (20) multiple choice questions, each worth one (1) mark. Students will be required to use EcStat and Excel to generate computer output and to carry out calculations required for their answers. Except where indicated in Mail messages and Announcements on Blackboard, the examinable content for the examination will consist of Lecture Topics 1-25, and Tutorial Exercises 1-12.
ASSESSABLE WITHIN-SEMESTER EXAMINATION DATES

The First Assessable Within-Semester Examination will be held in Computer Labs at the end of Week 8 on Saturday 1st May.

The Second Assessable Within-Semester Examination will be held in Computer Labs at the end of Week 12 on Saturday 29th May.

Students who wish to elect to include one or both of the two assessable Within-Semester Examinations in the combination on which their grade for ECON241 will be determined, must ensure that they are able to attend an examination at any time between 9 AM and 6 PM on these dates.
17. Optional Practice Assessment

NOTE: All of the components of Optional Assessment discussed on the next two pages have a weight of zero% in the final grade for ECON241.

That is, the Optional Online Test of Revision Material, the Optional Take-Home Assignment, and the two Optional Online Within-Semester Practice Examinations all have a weight of zero% in the final grade for ECON241.

There are two types of optional practice assessment in ECON241: an optional self-assessment component, and an optional objective component.

18. Optional Within-Semester Self Assessment

The optional within-semester self-assessment component consists of a series of Supplementary and Revision Exercises which students may work through in their own time, and which students mark themselves. Details of the Supplementary and Revision Exercises will be posted on the ECON241 Blackboard web site.

Detailed solutions for the Supplementary and Revision Exercises will be available on e-Reserve in the Library, and on the ECON241 Blackboard web site.

The purpose of the Supplementary and Revision Exercises is to enable students to judge for themselves how well they understand the lecture and tutorial material.

The Supplementary and Revision Exercises are an extensive and exhaustive set of exercises. Many of the exercises are repetitive. It is not intended that students work through all of the Supplementary & Revision exercises. Students should use these exercises to the extent that they believe they need additional practice, repetition and reinforcement in using the techniques and procedures discussed in the ECON241 lectures and tutorials, and in interpreting the results.
19. **Optional Within-Semester Objective Practice Assessment**

The optional within-semester objective component consists of:

(a) an optional Online Test of Revision Material  
(b) an optional Take-Home Mid-Semester Assignment  
(c) two optional Online Within-Semester Practice Examinations

These three aspects of the assessment are entirely optional in the sense that students must decide for themselves whether they submit the Test of Revision Material, submit the Assignment, submit the two Within-Semester Practice Examinations, or do none of those things. If students elect to submit the Test, submit the Assignment or submit the two Within-Semester Practice Examinations, their work will be marked objectively. The Test and the two Within-Semester Practice Examinations will be submitted and marked electronically on Blackboard. The Assignment will be marked by staff and returned to students.

The purpose of these three optional aspects of the within semester assessment is to enable students to obtain an objective measure of how well they have understood the material covered in the relevant sections of the lecture and tutorial program.

20. **Optional Online Test of Revision Material**

Distribution to students:  Blackboard, Week 4, Tuesday 16th March.  
Blackboard online submission deadline:  Sunday 21st March, 11:55 pm.

21. **Optional Take-Home Mid-Semester Assignment**

Distribution to students:  Blackboards, Week 6, Tuesday 30th March.  
Submission deadline:  BESS, Week 7, Friday 23rd April, 4:30 pm.

The Assignment must be placed in the ECON241 box at the FBE student services centre (BESS), E4B-106. After-hours submissions may be placed in the BESS after-hours box. Do **not** submit assignments directly to the lecturer or to tutors. Do **not** submit assignments under the lecturer’s door or under a tutor’s door. Even if your assignment is late it must be submitted via BESS, in BESS’s after-hours box, or directly to the counter staff in BESS.

22. **Two Optional Online Within-Semester Practice Examinations**

**First Online Within-Semester Practice Examination**

Distribution to students:  Blackboard, Week 8, Tuesday 27th April.  
Blackboard online submission deadline:  Sunday 2nd May, 11:55 pm

**Second Online Within-Semester Practice Examination**

Distribution to students:  Blackboard, Week 12, Tuesday 25th May.  
Blackboard online submission deadline:  Sunday 30th May, 11:55 pm
23. Compulsory End-of-Semester (Final) Examination

The final component of assessment is compulsory. It is the End-of-Semester (Final) Examination. All students enrolled in ECON241 are required to attend the End-of-Semester (Final) Examination. The purpose of the End-of-Semester Examination is to objectively assess each student’s overall understanding of the procedures discussed in ECON241, their overall level of competence in implementing those procedures and their overall level of competence in interpreting results obtained using those procedures.

24. Format of the Compulsory End-of-Semester (Final) Examination

The End-of-Semester Examination will have two sections: a multiple choice section, worth forty (40) marks, and a written-answer section, worth sixty (60) marks. In the first section there will be forty (40) questions, each worth one (1) mark. In the second section there will be ten (10) questions, each worth six (6) marks, requiring short written answers.

Except where indicated in Mail messages and Announcements on Blackboard, the examinable content for the End-of-Semester examination will consist of all the material discussed in lectures and tutorials from Weeks 1 – 13 (inclusive) except those tasks directly related to obtaining ECSTAT computing output. ECSTAT computing procedures are not examinable in the End-of-Semester (Final) Examination. However, students are required to be able to identify, summarise and discuss ECSTAT computer output.

25. Formulae Sheets

A Formulae Sheet will be provided to students in the End-of-Semester (Final) Examination. A copy of the formulae sheet will available on the ECON241 Blackboard web site for inspection by students at least two weeks prior to the examination.

Formulae Sheets will not be provided to students in the two Assessable Within-Semester Examinations.

26. Calculators

Some numerical calculations will be required in the End-of-Semester (Final) Examination. A basic calculator is all that will be required to carry out these calculations. Students will be permitted to take **non-programmable calculators only** into the ECON241 End-of-Semester (Final) Examination. A calculator is non-programmable if it does not have memory, or if it is capable of storing only numerical data in memory. Calculators that are capable of storing alphabetic characters in memory will **NOT** be permitted in the ECON241 End-of-Semester (Final) Examination.
27. Supplementary Assessment

Students who are prevented by circumstances beyond their control from attending the End-of-Semester Examination, or whose performance in the examination is affected by circumstances beyond their control, may submit a request for special consideration to be allowed to sit for a Supplementary End-of-Semester (Final) Examination, or to have these circumstances taken into account in determining the student’s grade. (See Section 28 on Special Consideration.)

Students will also be able to request special consideration for the Assessable Within-Semester Examinations. Students whose performance in an Assessable Within-Semester Examination is affected adversely by circumstances beyond their control may request that the Assessable Within Semester Examination have a weight of zero%, and that the 20% weight for that examination be transferred to the End-of-Semester (Final) Examination.

Students will not be able to request permission to submit a Supplementary or Deferred Test of Revision Material, a Supplementary or Deferred Take-Home Assignment, or to sit for a Supplementary or Deferred Within-Semester Practice Examination.

28. Special Consideration

The rules and procedures governing Special Consideration are set out on page 520 of the Macquarie University 2010 Handbook of Undergraduate Studies. It is the responsibility of all students enrolled in ECON241 to ensure that they have read and that they understand the rules and procedures governing Special Consideration.

Note: The University Senate has determined that minor illnesses are NOT sufficient grounds for being granted special consideration.

Note: The University Senate has determined that students in a unit will not be granted special consideration if their coursework for that unit is unsatisfactory, or if their participation in the unit is unsatisfactory.

In ECON241, results in the Optional Online Test of Revision Material, the Optional Take-Home Mid-Semester Assignment, and the Optional Online Within-Semester Practice Examinations and/or the two Assessable Within-Semester Examinations will be used as an indicator of the extent to which a student’s coursework and participation in the unit can be deemed to be satisfactory.