UNSW Course Outline

ECON2206 Introductory Econometrics - 2024

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General Course Information

Course Code : ECON2206
Year : 2024
Term : Term 1
Teaching Period : T1
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : School of Economics
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course introduces the use of econometrics to explore and estimate economic relationships using linear regression models. Extensions covering statistical complications such as heteroskedasticity, data issues such as proxy variables, and regression with time series data will

also be included. Practical computer applications feature throughout. The course will give students a basic understanding of methods required to model the inter-relationship between variables and prepare them for further studies of econometric methods.

Course Aims

ECON2206 provides an introduction to econometrics, which involves the application of statistical methods in the analysis of economic data.

Relationship to Other Courses

ECON2206 provides an introduction to econometrics, which involves the application of statistical methods in the analysis of economic data. ECON2206 is a prerequisite for ECON3208 (Applied Econometric Methods) and ECON3209 (Statistics for Econometrics).

ECON1203, COMM1110, or equivalent courses (see Handbook), is a prerequisite for ECON2206. The material covered in this course is treated as assumed knowledge.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : List and explain the assumptions underlying regression models.	• PLO1 : Business Knowledge
CLO2 : Use appropriate statistical software to analyse data.	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO3 : Present regression analysis results.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
CLO4 : Use econometric models and methods to interpret and analyse real data in economics, finance and other social sciences.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
CLO5 : Construct written work which communicates ideas in a succinct and clear manner using logical and professional presentation.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
CLO6 : Identify and assess environmental and sustainability considerations in problems in economics and business. Understand the ethical responsibilities associated with reporting econometric results.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO6 : Global and Cultural Competence

Course Learning Outcomes	Assessment Item
CLO1 : List and explain the assumptions underlying regression models.	• Storywall Discussion Participation • Problem Sets • In-session Test • Final Exam
CLO2 : Use appropriate statistical software to analyse data.	• Storywall Discussion Participation • Problem Sets • In-session Test
CLO3 : Present regression analysis results.	• Final Exam • Storywall Discussion Participation • Problem Sets • In-session Test
CLO4 : Use econometric models and methods to interpret and analyse real data in economics, finance and other social sciences.	• Final Exam • Storywall Discussion Participation • Problem Sets • In-session Test
CLO5 : Construct written work which communicates ideas in a succinct and clear manner using logical and professional presentation.	• Final Exam • Storywall Discussion Participation • In-session Test
CLO6 : Identify and assess environmental and sustainability considerations in problems in economics and business. Understand the ethical responsibilities associated with reporting econometric results.	• Problem Sets • Storywall Discussion Participation • In-session Test

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

Learning Activities and Teaching Strategies

The examinable content of the course is defined by the references given in the lecture schedule, the content of lectures, and the content of the tutorial program.

Lectures

The purpose of lectures is to provide a logical structure for the topics that make up the course; to emphasise the important concepts and methods of each topic; and to provide relevant examples to which the concepts and methods are applied. All lectures will be pre-recorded and uploaded on Moodle. Students should use the timetabled lecture slot (as well as plan for an additional 1.5 hours self-study time) to view the pre-recorded lectures. On Thursdays between 2:00pm and

3:30pm there will be an face-to-face session (location TBA) with the Lecturer, during which time she will go through the course material, providing further details, and answering questions.

Tutorials

Tutorials are an integral part of the subject. Tutorial presentations, discussions, and solutions to problems are designed to help students deepen their understanding and practice learned material. Both face-to-face and online tutorials are offered.

Out-of-Class Study

Most learning will be achieved outside of class time. Lectures can only provide a structure to assist your study, and tutorial time is limited.

An “ideal” strategy (on which the provision of the course materials is based) might include:

1. Read the relevant chapter(s) of the text and relevant lecture slides before the lecture. This will give you a general idea of the topic area.
2. Watch the pre-recorded lecture videos. Here the context of the topic in the course and the important elements of the topic are identified. The relevance of the topic will be explained.
3. Attempt tutorial questions before attending the tutorial class. This helps you identify issues that can be clarified or resolved in the tutorial class.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Storywall Discussion Participation Assessment Format: Individual	5%	Start Date: Not Applicable Due Date: Not Applicable	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO4 : Teamwork
Problem Sets Assessment Format: Individual	20%	Start Date: Not Applicable Due Date: 15:59 on Fridays of Week 4 & Week 10	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO4 : Teamwork • PLO6 : Global and Cultural Competence
In-session Test Assessment Format: Individual	30%	Due Date: 2pm-3pm on Tuesday in Week 7.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice • PLO6 : Global and Cultural Competence
Final Exam Assessment Format: Individual	45%	Due Date: UNSW Exam Period	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication

Assessment Details

Storywall Discussion Participation

Assessment Overview

Throughout the course, students are asked to work on a course project by participating in weekly Discussion Questions. The weekly Discussion Questions are designed to provide opportunities for students to:

1) practice the concepts they have learned in each topic;

2) reinforce their learning and help them identify the areas they need to focus on;

3) deepen their understanding of these concepts and their applications through discussion with their peers; and

4) link the concepts they have learned to their experiences and help them solidify the relevance of the course to the real world and to their lives.

It also enables the teaching staff to identify areas and concepts that need to be discussed further in class.

Assesses: PLO1, PLO2, PLO3, PLO4

myBcom points PLO4

Course Learning Outcomes

- CLO1 : List and explain the assumptions underlying regression models.
- CLO2 : Use appropriate statistical software to analyse data.
- CLO3 : Present regression analysis results.
- CLO4 : Use econometric models and methods to interpret and analyse real data in economics, finance and other social sciences.
- CLO5 : Construct written work which communicates ideas in a succinct and clear manner using logical and professional presentation.
- CLO6 : Identify and assess environmental and sustainability considerations in problems in economics and business. Understand the ethical responsibilities associated with reporting econometric results.

Detailed Assessment Description

More details about marking criteria and guidelines on writing posts and responses will be posted on Moodle.

Problem Sets

Assessment Overview

Problem sets are designed to assess students' understanding of regression models and ability to interpret regression results and appraise the quality of a model. Through working on problem sets, students will gain hands-on experience in running regression analyses using Statistical software (STATA).

Assesses: PLO1, PLO2, PLO3, PLO5, PLO6

Course Learning Outcomes

- CLO1 : List and explain the assumptions underlying regression models.
- CLO2 : Use appropriate statistical software to analyse data.

- CLO3 : Present regression analysis results.
- CLO4 : Use econometric models and methods to interpret and analyse real data in economics, finance and other social sciences.
- CLO6 : Identify and assess environmental and sustainability considerations in problems in economics and business. Understand the ethical responsibilities associated with reporting econometric results.

Detailed Assessment Description

Each of the 2 problem sets are worth 10% of the final marks.

The criteria used for marking the problem sets are the correctness and clarity of the answers presented. The problem sets are designed to assess progress toward learning goals listed in the Student Learning Outcomes section.

In-session Test

Assessment Overview

The in-session test will consist of MCQs and structured questions to test students' understanding of econometrics theory and methods taught in the course.

Assesses: PLO1, PLO2, PLO3, PLO5, PLO6

myBcom points PLO5

Course Learning Outcomes

- CLO1 : List and explain the assumptions underlying regression models.
- CLO2 : Use appropriate statistical software to analyse data.
- CLO3 : Present regression analysis results.
- CLO4 : Use econometric models and methods to interpret and analyse real data in economics, finance and other social sciences.
- CLO5 : Construct written work which communicates ideas in a succinct and clear manner using logical and professional presentation.
- CLO6 : Identify and assess environmental and sustainability considerations in problems in economics and business. Understand the ethical responsibilities associated with reporting econometric results.

Detailed Assessment Description

The In-session Test will be held online on Tuesday of Week 7 during 2:00pm to 3:00pm. The In-session Test will cover content from the first four weeks of the course.

Final Exam

Assessment Overview

The final exam will be held in the University examination period and will be designed to be completed in two hours by a well-prepared student. A longer window will be provided within which students must complete the exam. The final exam will cover the entire course. Further information on the content and structure of the final exam will be provided towards the end of term.

Assesses: PLO1, PLO2, PLO3

myBcom points PLO2

Course Learning Outcomes

- CLO1 : List and explain the assumptions underlying regression models.
- CLO3 : Present regression analysis results.
- CLO4 : Use econometric models and methods to interpret and analyse real data in economics, finance and other social sciences.
- CLO5 : Construct written work which communicates ideas in a succinct and clear manner using logical and professional presentation.

Detailed Assessment Description

The final exam is designed to assess knowledge of econometric concepts and your understanding of regression models and the application of those models to real-world problems. The questions will consist of MCQs and constructed response questions that involve interpretation of regression results, basic calculations, and evaluation of regression models.

General Assessment Information

Grading Basis

Standard

Requirements to pass course

In order to pass this course students must:

- Achieve a composite mark of at least 50 out of 100
- Engage actively in course learning activities and attempt all assessment requirements
- Meet any additional requirements specified in the assessment details
- Meet the specified attendance requirements of the course (see Schedule section)

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 12 February - 18 February	Lecture	Lecture A Introduction to Econometrics Wooldridge Ch 1
	Lecture	Lecture B Simple Regression Wooldridge Ch 2
Week 2 : 19 February - 25 February	Lecture	Lecture A Estimation Wooldridge Ch 2
	Lecture	Lecture B Multiple Regression Wooldridge Ch 2, 3
	Tutorial	Tutorial 1
Week 3 : 26 February - 3 March	Lecture	Lecture A Multiple Regression Wooldridge Ch 2, 3
	Lecture	Lecture B Inference and Testing Wooldridge Ch 4
	Tutorial	Tutorial 2
Week 4 : 4 March - 10 March	Lecture	Lecture A Inference and Testing Wooldridge Ch 4
	Lecture	Lecture B Functional Forms and Asymptotics Wooldridge Ch 5,6
	Tutorial	Tutorial 3
	Assessment	Problem Set 1 due Friday March 8 at 16:00
Week 5 : 11 March - 17 March	Lecture	Lecture A Qualitative Data Wooldridge Ch 7
	Lecture	Lecture B Model Testing and Data Issues Wooldridge Ch 8, 9
	Tutorial	Tutorial 4
Week 6 : 18 March - 24 March	Lecture	NO LECTURE - FLEXIBILITY WEEK
	Tutorial	NO TUTORIAL - FLEXIBILITY WEEK
Week 7 : 25 March - 31 March	Lecture	Lecture A NO LECTURE - Due to In-Session Test
	Lecture	Lecture B Heteroskedasticity Wooldridge Ch 8, 9
	Tutorial	Tutorial 5
	Assessment	In-session Test, Tuesday March 26, 2pm-3pm
Week 8 : 1 April - 7 April	Lecture	Lecture A Time Series Wooldridge Ch 10
	Lecture	Lecture B Time Series Wooldridge Ch 10
	Tutorial	Tutorial 6
Week 9 : 8 April - 14 April	Lecture	Lecture A Panel Data Wooldridge Ch 13
	Lecture	Lecture B Policy Evaluation Wooldridge Ch 13
	Tutorial	Tutorial 7
Week 10 : 15 April - 21 April	Lecture	Lecture A

		Review
	Lecture	Lecture B NO LECTURE
	Tutorial	Tutorial 8
	Assessment	Problem Set 2 due Friday April 19 at 16:00

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Course Resources

Prescribed Resources

This subject requires econometric/statistical software. The preferred software is Stata and you may only use another statistical package with the explicit permission of the lecturer.

Stata 16 is currently available through myAccess. Simply go to the dedicated myAccess website at https://www.myaccess.unsw.edu.au and use your zID and zPass to log into the service. You will need to complete some essential checks of your device and install a Citrix receiver on your device first to use the service. User guides on the myAccess website provide you with step-by-step instructions on how to complete these checks, install on multiple devices and operating systems and how to save, print and download files.

If students want to purchase a personal copy of Stata they can do so directly from the provider at http://www.surveydesign.com.au/buygradplan.html through the Australian GradPlan arrangements at a cost that varies depending on plan chosen. The version of small Stata, which can handle only up to 99 variables x 1200 observations, is not recommended.

The website for this course is on UNSW Moodle. The course website will contain links to the course outline, lecture slides, tutorial questions, data sets required for the tutorial questions, information on how to use Stata, examples of Stata programs and announcements. Students should consult this website at least once a week as it contains important information about the course. It will be assumed that all students have seen announcements posted on the course website.

The required textbook for this course is:

- Wooldridge, J.M., Introductory Econometrics: A Modern Approach, 7th Edition, South-Western

This textbook is currently in stock at the UNSW bookstore, and copies are held in Open Reserve

in the Main Library. Previous editions of this text will also be a suitable reference, but be aware that any page number references appearing in course material will relate to the latest edition and not to previous editions.

The following book provides an alternative presentation of similar material:

- J.H. Stock and M.W. Watson (2012) Introduction to Econometrics, 3rd Edition, Pearson.

More advanced treatment of the topics covered in the course are presented in the textbooks:

- W. Greene (2012) Econometric Analysis, 7th edition, Pearson.
- A.C. Cameron and P. Trivedi (2005) Microeconometrics: Methods and Applications, Cambridge University Press.

Recommended Resources

This subject requires econometric/statistical software. The preferred software is Stata and you may only use another statistical package with the explicit permission of the lecturer.

Stata 16 is currently available through 'myAccess'. Simply go to the dedicated myAccess website at https://www.myaccess.unsw.edu.au and use your zID and zPass to log into the service. You will need to complete some essential checks of your device and install a Citrix receiver on your device first to use the service. User guides on the myAccess website provide you with step-by-step instructions on how to complete these checks, install on multiple devices and operating systems and how to save, print and download files.

If students want to purchase a personal copy of Stata they can do so directly from the provider at http://www.surveydesign.com.au/buygradplan.html through the Australian GradPlan arrangements at a cost that varies depending on plan chosen. The version of small Stata, which can handle only up to 99 variables x 1200 observations, is not recommended.

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- A.C. Cameron and P. Trivedi (2005) *Microeconometrics: Methods and Applications*, Cambridge University Press.

Course Evaluation and Development

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

The School of Economics strives to be responsive to student feedback. If you would like more information on how the design of this course and changes made to it over time have taken students' needs and preferences into account, please contact the Director of Education at the School of Economics.

Consent for De-Identified Data to be Used for Secondary Research into Improving Student Experience

To enhance your student experience, researchers at UNSW conduct academic research that involves the use of de-identified student data, such as assessment outcomes, course grades, course engagement and participation, etc. Students of this course are being invited to provide their consent for their de-identified data to be shared with UNSW researchers for research purposes after the course is completed.

Providing consent for your de-identified data to be used in academic research is voluntary and not doing so will not have an impact on your course grades.

Researchers who want to access your de-identified data for future research projects will need to submit individual UNSW Ethics Applications for approval before they can access your data.

A full description of the research activities aims, risks associated with these activities and how your privacy and confidentiality will be protected at all times can be found here.

If you **consent** to have your de-identified data used for academic research into improving student experience, you do not need to do anything. Your consent will be implied, and your data may be used for research in a format that will not individually identify you after the course is completed.

If you **do not consent** for this to happen, please email the opt-out form to seer@unsw.edu.au to opt-out from having your de-identified data used in this manner. If you complete the opt-out form, the information about you that was collected during this course will not be used in academic research.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Yi Zhang		Room 430B, UNSW Business School	(02) 90653432	Thursdays 3:30pm-4:30pm, and by appointment	No	Yes
Lecturer	Fanghua Li		Room 3122, Quadrangle Building	(02) 9065 3321	Thursdays 3:30pm-4:30pm, and by appointment	No	No

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the key policies and support page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the key policies and support page. For PG Research PLOs, including MPDBS, please refer to the UNSW HDR Learning Outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Students studying remotely who have exams scheduled between 10pm and 7am local time, are also able to apply for special consideration to sit a supplementary exam at a time outside of

these hours.

Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable. To apply, and for further information, see Special Consideration on the UNSW Current Students page.

Special consideration applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application.

Please note the following:

1. Applications can only be made through Online Services in myUNSW (see the UNSW Current Students page). Applications will not be accepted by teaching staff. The lecturer-in-charge/ course coordinator will be automatically notified when your application is processed.
2. Applying for special consideration does not automatically mean that you will be granted a supplementary exam or other concession.
3. If you experience illness or misadventure in the lead up to an exam or assessment, you must submit an application for special consideration, either prior to the examination taking place, or prior to the assessment submission deadline, except where illness or misadventure prevent you from doing so.
4. If your circumstances stop you from applying before your exam or assessment due date, you must apply within 3 working days of the assessment or the period covered by your supporting documentation.
5. Under the UNSW Fit To Sit/Submit rule, if you sit the exam/submit an assignment, you are declaring yourself well enough to do so and are cannot subsequently apply for special consideration.
6. If you become unwell on the day of – or during – an exam, you must stop working on your exam, advise your course coordinator or tutor and provide a medical certificate dated within 24 hours of the exam, with your special consideration application. For online exams, you must contact your course coordinator or tutor immediately via email, Moodle or chat and advise them you are unwell and submit screenshots of your conversation along with your medical certificate and application.
7. Special consideration requests do not allow the awarding of additional marks to students.

Further information on Business School policy and procedure can be found under “Special Consideration” on the key policies and support page.

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. An assignment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the 'wrong' assignment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.
- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

QUALITY ASSURANCE

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.