ECON3101
Microeconomics 3
(Topics in Applied Microeconomics)

Modern economics is a way of thinking that provides important insights into human behaviour and how the world works. The emphasis in Microeconomics 3 is on deepening students' understanding of the basic principles of microeconomics and learning how to use these principles to analyse real world problems and policy issues. The course builds upon the material covered in Microeconomics 1 and 2 by treating some of the concepts introduced in previous microeconomic courses with greater degree of formality. The course also covers more advanced tools of microeconomic theory and applications of the theory to a range of economic problems. Topics and techniques that are emphasized include: concepts and measurement of individual and aggregate consumer welfare, partial and general equilibrium efficiency analysis, choice under uncertainty and information economics.

<table>
<thead>
<tr>
<th>Mode of Delivery</th>
<th>On campus</th>
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</table>
| Prerequisites     | Students must have successfully completed either ECON2101 (Microeconomics 2(P)) or ECON2111 (Microeconomics 2(H)).  
|                   | While it is not a formal prerequisite, the material covered in EMET1001 (Foundations of Economic and Financial Models) will be assumed knowledge in this course. |
| Incompatible Courses | None listed. |
| Course Convener:  | Dr Damien Eldridge. |
| Email:            | Damien.Eldridge@anu.edu.au |
| Office hours for student consultation: | Monday 3 pm to 5 pm and Tuesday 3 pm to 5 pm (in teaching weeks only). |
| Research Interests | Microeconomic Theory, Applied Microeconomics, Mathematical Economics. |
| RSE Student Office Contact | Nicole Millar |
| Phone:            | 02 612 50384 |
| Email:            | enquiries.rse@anu.edu.au |
| RSE Students Webpage | https://www.rse.anu.edu.au/students/ |

SEMESTER ONE, 2017
COURSE OVERVIEW

Learning Outcomes

On satisfying the requirements for this course, students should have the knowledge and skills to:
1. Think for themselves like economists, or at least understand how economists think;
2. Recognise the economic aspects in a problem and apply the appropriate tools to analyse it; and
3. Understand the economic tools taught in this class and appropriate earlier classes, and be able to apply them to analyse real world problems and policy issues.

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Potential Value</th>
<th>Due Date</th>
<th>Date for Return of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tutorial Assignments</td>
<td>10 %</td>
<td>Submitted Weekly (no later than 2:00 pm on Mondays)</td>
<td>Returned in tutorial classes.</td>
</tr>
<tr>
<td>(Optional and Redeemable)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Mid-Semester Exam</td>
<td>35 %</td>
<td>TBA (In Week 6)</td>
<td>Results announced in Week 7. Exam viewing times TBA.</td>
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<tr>
<td>(15 Minutes Reading, 2 Hours Writing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Final Exam</td>
<td>55 %</td>
<td>TBA (In the official final exam period)</td>
<td>Exams may be viewed at some point after the final grades have been officially released.</td>
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<tr>
<td>(15 Minutes Reading, 3 Hours Writing)</td>
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Research-Led Teaching

The material taught in this course is directly relevant to various applied microeconomic research topics that have been considered by both academic economists and economists in various public sector agencies.

Feedback

Staff Feedback
Students will receive general feedback on the mid-semester exam for this course in lectures. They will have the opportunity to obtain more specific feedback on their mid-semester exam performance from the teaching staff for the course by scheduling a private consultation with the relevant staff member. Students will also have the opportunity to obtain feedback on any topic related to this course during their scheduled tutorial sessions and the regular consultation sessions that are held by the teaching staff in this unit. I highly encourage students to avail themselves of these opportunities.

Student Feedback
ANU is committed to the demonstration of educational excellence and regularly seeks feedback from students. One of the key formal ways students have to provide feedback is through Student Experience of Learning Support (SELS) surveys. The feedback given in these surveys is anonymous and provides the Colleges, University Education Committee and Academic Board with opportunities to recognise excellent teaching, and opportunities for improvement.
For more information on student surveys at ANU and reports on the feedback provided on ANU courses, go to
http://unistats.anu.edu.au/surveys/selt/students/ and
http://unistats.anu.edu.au/surveys/selt/results/learning/

**Policies**
ANU has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and implement them. You can find the University’s education policies and an explanatory glossary at: http://policies.anu.edu.au/

Students are expected to have read the Academic Misconduct Rules 2014 before the commencement of their course.

Other key policies include:
- Student Assessment (Coursework)
- Student Surveys and Evaluations

**Workload Expectations**

The amount of work required for successful completion of this subject may vary between students. As a rough guide, students should expect to devote at least 10 hours a week to this unit. This should include all of the following.

- 3 hours a week: lectures.
- 1 hour a week: tutorials.
- At least 6 hours a week: reading, research, writing, lecture and tutorial preparation.

**Examination material or equipment**

Other than writing related equipment (such as pens, pencils, erasers, sharpeners, and rulers), only a non-programmable calculator may be used in either of the exams for this subject.

**Recommended Resources**

There is no required textbook for this course. A suggested reading list is provided at the end of this syllabus.

**COURSE SCHEDULE**

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Summary of Activities</th>
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<tbody>
<tr>
<td>1 to 5</td>
<td>An Introduction to Welfare Economics</td>
</tr>
<tr>
<td>6</td>
<td>Mid-Semester Exam and Review of Mid-Semester Exam</td>
</tr>
<tr>
<td>7 to 8</td>
<td>The Economic Approach to Cost-of-Living Indices</td>
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<td>9 to 10</td>
<td>The Regulation of Natural Monopolies</td>
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<td>11 to 12</td>
<td>The Design and Assessment of Taxation Systems</td>
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<td></td>
<td>Final Examination Period</td>
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</table>
ASSESSMENT REQUIREMENTS

Assessment Task 1
Assessment Task: Tutorial Assignments
Details of task: Attempted solutions to assigned problems must be turned in by 2:00 pm on Monday in most teaching weeks.
Estimated return dates: Assignments will be returned in tutorials in the first teaching week after the submission week.
Value: In total, tutorial assignments will be worth (at most) 10 % of your raw mark in this course. However, this component is both optional and redeemable. It will only count towards your raw mark if it exceeds your mark on the final exam. If your tutorial mark does not exceed your mark on the final exam, then the ten percentage points allocated to tutorials will be reallocated to the final exam.
Assignment Grading: Each assignment will be graded on a “Good Attempt (2) – Poor Attempt (1) – No Attempt (0)” basis.
Purpose: The purpose of this assessment item is not to test whether or not you get the answers correct, but instead to motivate you to keep up with the material.
Note: Since this assessment item is both optional and redeemable, no special arrangements will be made for missed tutorial assignments.

Assessment Task 2
Assessment Task: Mid-Semester Exam
Details of task: This will be a formal exam consisting of fifteen minutes of reading time and two hours of writing time. It will consist of a number of problems that are related to the material covered in at least one of the following: (i) lectures in weeks one to four, (ii) tutorials in weeks two to five, and (iii) the associated readings. It will be held sometime during week six and will replace the first two hours of lectures for this course in that week.
Estimated return dates: Marks will be posted on the Wattle site for the unit by the end of week seven. Potential exam viewing times will be announced at that point.
Value: The mid-semester exam is worth (at most) 35 % of your raw mark for this course. However, this component is both optional and redeemable. It will only count towards your raw mark if it exceeds your mark on the final exam. If your mid-sememester exam mark does not exceed your mark on the final
exam, then the thirty-five percentage points allocated to the mid-semester exam will be reallocated to the final exam.

**Purpose:**
The purpose of this assessment item is to test both your understanding of the material covered in the relevant part of this course and your ability to apply that material to problems from economics, finance, and business studies.

**Note:**
Since this assessment item is both optional and redeemable, no special arrangements will be made for the mid-semester exam in the event that it either cannot be sat by a student at the scheduled time or is missed by a student.

**Assessment Task 3**

**Assessment Task:** Final Exam

**Details of task:** This will be a formal exam consisting of fifteen minutes of reading time and three hours of writing time. It will consist of a number of problems that are related to any of the material covered in this course. This includes material covered in lectures, material covered in tutorials, and material covered in the suggested reading. It will be held sometime during the official final exam period. The date, time, and location will be determined by the University administration.

**Estimated return dates:** The final exam script books will be available for viewing at some point following the release of the official results for Semester One in 2017.

**Value:** The final exam is worth (at least) 55% of your raw mark for this course.

**Purpose:** The purpose of this assessment item is to test both your understanding of the material covered in this course and your ability to apply that material to problems from economics, finance, and business studies.

**Assignment submission**
- Please submit your tutorial assignments by placing a hardcopy of the assignment in the appropriate assignment box on Level One of the H. W. Arndt Building (near the Research School of Economics Enquiries Desk).
- Please ensure that your submitted assignments have a completed and signed assignment cover sheet attached.
- Please keep a copy of your submitted assignments for your own use in tutorial classes and for exam revision.

**Extensions and penalties**
No submission of assessment tasks without an extension after the due date will be permitted. If an assessment task is not submitted by the due date and an extension has not been granted or alternative arrangements have not been authorised, then a mark of 0 will be awarded.
**Scaling**
Your final mark for the course will be based on the raw marks allocated for each of your assessment items. However, your final mark may not be the same number as produced by that formula, as marks may be scaled. Any scaling applied will preserve the rank order of raw marks (i.e. if your raw mark exceeds that of another student, then your scaled mark will exceed the scaled mark of that student), and may be either up or down.

**Privacy Notice**
The ANU has made a number of third party, online, databases available for students to use. Use of each online database is conditional on student end users first agreeing to the database licensor’s terms of service and/or privacy policy. Students should read these carefully.

In some cases student end users will be required to register an account with the database licensor and submit personal information, including their: first name; last name; ANU email address; and other information.

In cases where student end users are asked to submit ‘content’ to a database, such as an assignment or short answers, the database licensor may only use the student’s ‘content’ in accordance with the terms of service – including any (copyright) licence the student grants to the database licensor.

Any personal information or content a student submits may be stored by the licensor, potentially offshore, and will be used to process the database service in accordance with the licensors terms of service and/or privacy policy.

If any student chooses not to agree to the database licensor’s terms of service or privacy policy, the student will not be able to access and use the database. In these circumstances students should contact their lecturer to enquire about alternative arrangements that are available.

**SUPPORT FOR STUDENTS**
The University offers a number of support services for students. Information on these is available online from [http://students.anu.edu.au/studentlife/](http://students.anu.edu.au/studentlife/)

**Other Information**
Building Access Hours
Both CBE and HW ARNDT are:
TEACHING PERIOD = Mon – Fri 07.45 to 21.15 and SAT, SUN and Public Holidays is not accessible by students.
Both CBE and HW ARNDT are:
NON TEACHING PERIOD = Mon – Fri 08.00 to 18.00 and SAT, SUN and Public Holidays is not accessible by students.

RSE has a Frequently Asked Questions page where you can find relevant policies and information on a broad range of topics, the onus is on the student to familiarise themselves with this page and the information available.
[https://www.rse.anu.edu.au/students/students/frequently-asked-questions/](https://www.rse.anu.edu.au/students/students/frequently-asked-questions/)
There is no required textbook for this course. Instead, readings are drawn from a variety of sources. An incomplete draft of these references is provided below. There is a fair degree of duplication of material across these references. As such, you do not need to read all of these references. However, you should read as many of them as you require to ensure that you thoroughly understand the material. Note that the material covered in lectures, tutorials, and the readings are complements rather than substitutes. Anything that is covered in at least one of these three components of the course material is potentially examinable unless I explicitly indicate otherwise.

While there is no required textbook for this course, I highly recommend that you have access to at least one good intermediate undergraduate microeconomics textbook and at least one good advanced undergraduate microeconomics textbook. I have listed some examples of such books below. Do not worry too much about the edition of such books unless they were published before about 1980.

**Some Intermediate Undergraduate Microeconomics Textbooks**


**Some Advanced Undergraduate Microeconomics Textbooks**


**Topic 1: An Introduction to Welfare Economics (Approximately 5 Weeks)**

1a: The Measurement of Individual Welfare

- **Outline:**
  - The Measurement of Consumer Welfare.
    - Demand Curves: Marginal Benefit, Total Benefit, and Marshallian Consumer Surplus.
• Preferences, Constraints, and Optimisation.
• Budget-Constrained Utility Maximisation and the Derivation of Marshallian Demand Curves.
• Utility-Constrained Expenditure Minimisation and the Derivation of Hicksian Demand Curves.
• The Slutsky Equation: Income Effects, Substitution Effects, and Total Effects.
• Equivalent Variation, Compensating Variation, and Hicksian Consumer Surplus.
• The Relationship Between Hicksian Demand Curves and Marshallian Demand Curves.
• The Relationship Between Hicksian Consumer Surplus and Marshallian Consumer Surplus.
• When is Marshallian Consumer Surplus a Reasonable Approximation of Hicksian Consumer Surplus?
  - The Measurement of Producer Welfare
    • Supply Curves: Marginal Cost, Total Variable Cost, and Producers Surplus.
    • Production Technologies, Constraints, and Optimisation.
    • Short-Run Versus Long Run.
    • Output-constrained cost minimization and the derivation of output-conditional input demand curves.
    • Profit maximization and the derivation of the output supply curve and unconditional input demand curves.
    • Producers Surplus Versus Economic Profit: Sunk Costs, Fixed Costs, and Variable Costs.

• Textbook Reading:
  - Boadway, RW, and N Bruce (1984), *Welfare economics*, Basil Blackwell Publisher, Great Britain: Chapters 1, 2, and 7.
  - Gravelle, H, and R Rees (1981), *Microeconomics*, Longman Group, USA: Chapters 2, 3, 4, 5, 6, 7, 8, and 9.
- Nicholson, W (1987), *Intermediate microeconomics and its applications (fourth edition)*, The Dryden Press, USA: Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and the Appendix to Chapter 8.
- Varian, HR (1987), *Intermediate microeconomics: a modern approach*, WW Norton and Company, USA: Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 15, 16, 18, 19, 20, 21, 22, 23, and the Mathematical Appendix.
- Varian, HR (1992), *Microeconomic analysis (third edition)*, WW Norton and Company, USA: Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 26, and 27.

Other Reading:

1b: The Measurement of Social Welfare

- Outline:
  - What is Social Welfare?
    - Should it Depend on the Welfare of the Individuals in a Society?
    - Efficiency: The Size of the Pie.
    - Equity: The Distribution of the Pie.
  - Social Welfare Functions as the Embodiment of Moral Principles.
    - The Utilitarian Social Welfare Function.
    - A Dictatorial Social Welfare Function.
  - Do Social Welfare Functions Exist?
    - Arrow’s Impossibility Theorem.
    - Sen’s Impossibility Theorem.
    - Are Individual Utilities Ordinal or Cardinal?
    - Are Inter-Personal Comparisons of Utility Legitimate?
    - Does a Social Welfare Function Depend on the Chosen Representation of an Individual’s Utility Function?
  - Economic Efficiency in its Various Guises.
- Pareto Efficiency.
- Incompleteness of Pareto Rankings.
- Kaldor-Hicks Efficiency.
- The Scitovsky Paradox.
- The Components of Economic Efficiency:
  - Allocative Efficiency.
  - Technical Efficiency.
  - Productive Efficiency.
  - Dynamic Efficiency.

**Textbook Reading:**
- Broadway, RW, and N Bruce (1984), *Welfare economics*, Basil Blackwell Publisher, Great Britain: Chapters 1, 3, 5, 6, 8, and 9.

**Other Reading:**

1c: Market Successes, Market Failures, and Policy Evaluation

- **Outline:**
- **Textbook Reading:**
- Other:

1d: Partial Equilibrium Analysis Versus General Equilibrium Analysis

- Textbook Chapters:
  - Mas-Colell, A, MD Whinston, and JR Green (1995), *Microeconomic theory*, Oxford University Press, USA: pp. 316 and 538–540. (Note that this is a graduate-level textbook in microeconomic theory and, as such, it is pitched at a much too advanced level for this course. However, the small amount of material referenced here can be usefully read by advanced undergraduate students.)
- Other:


**Topic 2: The Economic Approach to Cost-of-Living Indices (Approximately 2 Weeks)**

- **Outline:**
  - TBA.
- **Textbook Chapters:**
- **Other:**


**Topic 3: The Regulation of Natural Monopolies (Approximately 2 Weeks)**

- **Outline:**
  - TBA.
- **Textbook Reading:**
  - Viscusi, WK, JE Harrington Jr, and JM Vernon (2005), *Economics of regulation and antitrust (fourth edition)*, The Massachusetts Institute of Technology Press, USA: Chapters 10, 11, 12, 13, 14, 15, 16, 17, and 18.
  - Wilson, R (1993), *Nonlinear pricing*, Oxford University Press, USA.
- **Other Reading:**

**Topic 4: The Economics of Taxation (Approximately 2 Weeks)**

- Outline:
  - TBA.
- Textbook Reading:
- Other Reading: