UNSW Business School

School of Economics

ECON1107

ELEMENTS OF ENVIRONMENTAL ECONOMICS

Course Outline

Semester 1, 2017

Part A: Course-Specific Information

Students are also expected to have read and be familiar with **Part B Supplement to All Course Outlines**. This contains Policies on Student Responsibilities and Support, Including Special Consideration, Academic Misconduct and Plagiarism, and Key Dates. It also contains the Business School PROGRAM LEARNING GOALS.

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1 STAFF CONTACT DETAILS

Lecturer-in-charge: Dr. Tess Stafford
Office: Room 3129, Quad (Level 3)
Phone No: 9385 4187
Email: t.stafford@unws.edu.au
Consultation Times: See Moodle

Tutor(s): A full list of tutors will be posted on Moodle.

1.1 Communications with staff

You should feel free to contact your lecturer(s) about any academic matter. However, I strongly encourage, for efficiency, all enquiries about the subject material be made at lectures or tutorials or during consultation time. Discussion of course subject material will not be entered into via lengthy emails.

Email correspondence on administrative matters (e.g. advising inability to attend tute) will be responded to within 48 hours, but not over weekends. Please note that the lecturer has no advance notice of the date and time of the exam.

2 COURSE DETAILS

2.1 Teaching Times and Locations

Lectures start in Week 1 and end in Week 12.
Time: Tuesdays 3:00-5:00pm
Location: UNSW Business School Building, G26 (E12 on Campus Map)
Note there will be no lectures on Tuesday 25th April due to the Anzac Day public holiday.

Tutorials start in Week 2 and end in Week 13.
Tuesdays 2:00-3:00pm, Goldstein Building G01 (D16 on Campus Map)
Tuesdays 5:00-6:00pm, UNSW Business School Building G26 (E12 on Campus Map)
Note there will be no tutorials on Tuesday 25th April due to the Anzac Day public holiday.

2.2 Units of Credit

The course is worth 6 units of credit.
There is no parallel teaching in this course.

2.3 Summary of Course

This course provides an introduction to markets and market failure in the context of the environment. Students learn the reasons behind why environmental problems exist, and economic solutions to these problems, which include regulations, taxes, subsidies, and pollution permit trading schemes. Methods for determining the benefits and costs of environmental preservation are covered. While controversial at times, such accounting is fundamental to social decision making. One goal of the course is to make students aware that the answer to environmental issues is not as simple as "save the planet", and that there are other perspectives, complexities and trade-offs that have to be taken into account.

2.4 Aims and Relationship to Other Courses

This course is offered as part of the second year core in the B. Env Science degree and as an elective for B.Com and B.Econ.

2.5 Student Learning Outcomes

The Course Learning Outcomes are what you should be able to DO by the end of this course if you participate fully in learning activities and successfully complete the assessment items.

The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all undergraduate coursework students in the Business School. Program Learning Goals are what we want you to BE or HAVE by the time you successfully complete your degree. You demonstrate this by achieving specific Program Learning Outcomes - what you are able to DO by the end of your degree.

For more information on the Undergraduate Program Learning Goals and Outcomes, see Part B of the course outline.

The following table shows how your Course Learning Outcomes relate to the overall Program Learning Goals and Outcomes, and indicates where these are assessed:

Program Learning Goals and Outcomes		**Course Learning Outcomes**	**Course Assessment Item**
This course helps you to achieve the following learning goals		*On successful completion of the course, you should be able to:*	*This learning outcome will be assessed in the following items:*
1	Knowledge	Understand the theoretical basis upon which the sub-discipline has been built	• Tutorial Problems • Group Project • Mid-session and Final Exams
2	Critical thinking and problem solving	Recognise situations in which markets are likely to be inefficient and be able to prescribe a variety of intervention tools to correct the inefficiency. Apply methods economists use to measure environmental benefits.	• Tutorial Problems • Group Project • Mid-session and Final Exams
3a	Written communication	Construct written work that is logically and professionally presented.	• Tutorial Problems • Group Project • Mid-session and Final Exams
3b	Oral communication	Communicate ideas in a succinct and clear manner.	• Presentations of Group Project
4	Teamwork	Work collaboratively to complete a task.	• Tutorial Problems • Group Project
5a.	Ethical, environmental and sustainability considerations	Evaluate the rationale of current environmental initiatives including climate change and water reform	• Tutorial Problems • Group Project • Mid-session and Final Exams

5b.	Social and cultural awareness	Understand distinction between social and private optima.	• Tutorial Problems • Group Project • Mid-session and Final Exams

3 LEARNING AND TEACHING ACTIVITIES

3.1 Approach to Learning and Teaching in the Course

The philosophy underpinning this course and its Teaching and Learning Strategies are based on "Guidelines on Learning that Inform Teaching at UNSW. These guidelines may be viewed at: www.guidelinesonlearning.unsw.edu.au. Specifically, the lectures, tutorials and assessment have been designed to appropriately challenge students and support the achievement of the desired learning outcomes. A climate of inquiry and dialogue is encouraged between students and teachers and among students (in and out of class). The lecturers and tutors aim to provide meaningful and timely feedback to students to improve learning outcome.

3.2 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 emphasize the important concepts and methods of each topic, and to provide relevant examples to which the concepts and methods are applied.

Tutorials
Tutorials are an integral part of the subject. Tutorial presentations, discussions, and questions will build on the material discussed in class with the lecturer.

Out-of-Class Study
While students may have preferred individual learning strategies, it is important to note that 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:

- Reading of the relevant chapter(s) of the text and any readings **before the lecture.** This will give you a general idea of the topic area.
- Attendance at lectures. Here the context of the topic in the course and the important elements of the topic are identified. The relevance of the topic should be explained.
- Attending tutorials and attempting the tutorial questions.

4 ASSESSMENT

4.1 Formal Requirements

In order to pass this course, you must:

- achieve a composite mark of at least 50 out of 100; and
- make a satisfactory attempt at ALL assessment tasks. This means a mark of at least 40% in all assessment items.

4.2 Assessment Details

	Assessment Task	Weight	Length	Due Date
1	Tutorial Discussion Questions	10%	Various	Randomly selected
2	Group Assignment: Interim Report	5%	~2 pages	Week 8, Monday 24 April at 12:00 noon
3	Midterm Exam	25%	100 min.	Week 7, in class (11 April at 3:00pm)
4	Group Assignment: Presentation	5%	~10 min.	Weeks 11 & 12, in tutorial
5	Group Assignment: Final Report	10%	~4 pages	Week 13, in tutorial
6	Final Exam	45%	2 hours	University Exam Period
		100%		

4.3 Tutorial discussion questions

Each week, you will be given an assignment, the solutions to which will be reviewed during your tutorial. Of these assignments, 2 – 4 will be randomly chosen, collected at the beginning of your tutorial prior to review, and graded. Your combined grade on these assignments will constitute 10% of your overall assessment in the course.

Assignments must be submitted within the first 5 minutes of your tutorial or they will not be collected and graded. Students who do not submit the assessment within this time frame and who do not have adequate reason will be awarded a mark of zero. Documentary evidence for an absence (e.g. medical certificate) must be provided to the Lecturer-in-charge. If approved, the student will have their final mark re-weighted according to the weight of the missed piece of assessment.

4.4 Midsession Exam

The purpose of the midsession exam is to test your understanding of the basic concepts and theories introduced in the first half of the course.

The exam will be held on Tuesday 11 April (Week 7) during class time (3:00 – 5:00pm) and details will be confirmed within the lectures preceding the exam. The examination will test all material covered in lectures up to and including Week 6.

There will be **NO supplementary tests** offered for the mid-session exam. You should make every effort to take the mid-session exam. Students who fail to attend the examination will need to apply for Special Consideration.

Applications for special consideration for the mid-session exam must be lodged online through myUNSW within 3 working days of the exam. (Log into myUNSW and go to My Student Profile tab > My Student Services channel > Online Services > Special Consideration). Then submit the originals or certified copies of your completed Professional Authority form (pdf - download here) and any supporting documentation to Student Central.

Employment obligations or holiday plans of any kind are not acceptable reasons for absence from any test/examination.

4.5 Group Project

You will work collaboratively in small groups on a project in which you will examine an environmental problem. The project topic will be chosen by each group and will be discussed in the first tutorial (Week 2).

Each group will submit an electronic copy of their interim report via the relevant Moodle link in Week 8, Monday 24th April at 12:00 noon. The final project report will be due in Week 13 by the start of your tutorial session. One member of each group is required to upload an electronic copy of your group's final report prior to the start of your tutorial. Groups will present their final projects during their tutorial in either Week 11 or Week 12. Groups must be able to present during either of these weeks.

Guidelines for the format and structure of the interim and final reports will be provided in the first couple weeks of class.

4.5.1 Assessment

Interim report (due Week 8, Monday 24 April at 12pm): 5%
Presentation (given Weeks 11 and 12 in tutorial): 5%
Final report (due Week 13 in tutorial): 10%

All electronic copies of essays will be checked for plagiarism on the Turnitin software onto which they are uploaded. See notes on Plagiarism below and also note that the Turnitin software will automatically check against all other assignments submitted. Full instructions will be available on the website. Browse and upload a copy of your document - do not paste text. Use your student ID in the file name.

A *peer group assessment* will also be undertaken in order to make individual contributions transparent. This will allow you to learn and reflect on how to work effectively as a group. Your group work skills and effectiveness of your team are going to influence the quality of your report and will therefore affect your assessment. This will take place at a random point in time during the semester.

4.5.2 Late Submission of Assignment

25% of the value of each written assignment (interim and final reports) will be deducted for each day (24 hours) or part thereof for which the electronic copy of the assignment is submitted to the course website after the deadline. Assignments submitted more than four days late will not be marked. Note that if your group is not able to present the final report on the due date, a mark of zero will be recorded for this portion of the assignment (i.e. there will be no make-up presentations).

4.6 Final Exam Format

The purpose of the Final Exam is to assess understanding of all environmental economic concepts, theories and policy prescriptions introduced in the course and to test the ability to use these to interpret and analyse real world applications.

The Final Exam will be held in the University examination period and will be 2 hours in length. The Final Exam will cover the entire course including the material that was previous covered by the midsession exam.

Further information on the content of the Final Exam will be provided towards the end of session.

A satisfactory performance in the Final Exam is required to pass this subject.

4.7 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 and will not be related to course grades.

5 COURSE EVALUATION AND DEVELOPMENT

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's myExperience Survey Tool is one of the ways in which student evaluative feedback is gathered. You are strongly encouraged to take part in the feedback process.

6 COURSE RESOURCES

The website for this course is on UNSW Moodle at: http://moodle.telt.unsw.edu.au

The textbook for this course is:
Callan, S. J. & Thomas, J. M. (2010), *Environmental Economics and Management: Theory, Policy, and Applications*, 5th Edition, Thomson South-Western, Ohio.

You may also find the following textbooks useful for some parts of the course:
Tietenberg, T. and Lewis, L. (2010), *Environmental Economics and Policy*, International Edition, 6th Edition, Addison-Wesley, Boston.

Perman, R., Yue, M., McGilvray, J., & Common, M. (2003), *Natural Resource and Environmental Economics*, 3rd Edition, Pearson Education, Essex.

Additional Readings:
Additional reading materials will be made available on Moodle by the Monday before the relevant lecture. Please note that some additional materials may be added throughout the course as the need arises.

7 COURSE SCHEDULE

7.1 Lecture Schedule

Lectures start in Week 1 and finish in Week 13. This is a ***tentative*** schedule. Updated versions of the schedule will be put on the Course website. All references are from the prescribed text [Callan, S. and Thomas, J. (2010)]. Additional references will be provided in lecture notes and uploaded in Moodle.

LECTURE SCHEDULE		
Week	**Topic**	**Reference**
Week 1 28 February	Introduction & Logistics; Market models	Chapters 1 & 2; See Moodle
Week 2 7 March	Market models & market efficiency	Chapter 2; See Moodle
Week 3 14 March	Market failure: Public goods & externalities	Chapter 3; See Moodle
Week 4 21 March	Pollution control: Targets and command-control	Chapter 4; See Moodle
Week 5 28 March	Pollution control: Market based approaches (taxes, subsidies)	Chapter 5; See Moodle
Week 6 4 April	Pollution control: Market based approaches (deposit/refund, permit trading)	Chapter 5; See Moodle
Week 7 11 April	Midterm Exam	
Mid-semester break: Friday 14 – Saturday 22 April inclusive		
Week 8 25 April	*(Tuesday 25 April is Anzac Day public holiday)*	
Week 9 2 May	Pollution control: Market based approaches (miscellaneous)	Chapter 5; See Moodle
Week 10 9 May	Measuring the environment: Assessing benefits (damage function, CV, and averting expenditure methods)	Chapter 7; See Moodle
Week 11 16 May	Measuring the environment: Assessing benefits (travel cost and hedonic pricing methods)	Chapter 7; See Moodle
Week 12 23 May	Measuring the environment: Assessing costs; Benefit-cost analysis	Chapters 8 and 9; See Moodle
Week 13 30 May	Special Topics (TBD)	See Moodle

7.2 Tutorial Schedule

Tutorials start in Week 2 and finish in Week 13. It is expected that you complete all weekly assignments prior to the start of each tutorial.

TUTORIAL SCHEDULE	
Week	**Topic**
Week 1 28 February	NO TUTORIALS
Week 2 7 March	Group project topic discussion; Week 1 lecture and homework review
Week 3 14 March	Week 2 lecture and homework review
Week 4 21 March	Week 3 lecture and homework review
Week 5 28 March	Week 4 lecture and homework review
Week 6 4 April	Week 5 lecture and homework review; Submit Interim Report
Week 7 11 April	NO TUTORIALS
Mid-semester break: Friday 14 – Saturday 22 April inclusive	
Week 8 25 April	*(Tuesday 25 April is Anzac Day public holiday)* NO TUTORIALS
Week 9 2 May	Mid-session exam review
Week 10 9 May	Week 9 lecture and homework review
Week 11 16 May	Group project presentations
Week 12 23 May	Group project presentations
Week 13 30 May	Weeks 10, 11, and 12 lecture and homework review; Submit Final Report