UNSW Business School

School of Economics

ECON5111
ECONOMICS OF STRATEGY

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

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2 COURSE DETAILS

2.1 Teaching Times and Locations
Lectures/tutorials start in Week 1 and run to Week 12. Each student should enrol in the lecture and the tutorial. The combined lecture/tutorial meets on Thursdays 6 – 9pm in BUS 105 in the UNSW Business School building.

2.2 Units of Credit
This course carries 6 units of credit.

2.3 Summary of Course
This course covers the fundamentals of Game Theory and its applications. Game Theory is a revolutionary way of analysing strategic interactive situations. It is basic to the understanding of market competition among large firms, the designing of incentive contracts, bidding at auctions, bargaining, and other similar problems central to economics and business. This course covers simultaneous and sequential games and their solution concepts, games of imperfect information, repeated games, and a selection of applications and case studies.

2.4 Aims and Relationship to Other Courses
The course aims to train students' strategic thinking and to provide them with basic tools and concepts to analyse strategic situations and behaviour. ECON 5111 is one of the specialist courses in the *Business Strategy* specialisation offered in the M Com (coursework) program. It may also be chosen as an elective in several other specialisations.

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 postgraduate 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 Postgraduate 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	demonstrate a basic understanding of game theoretical tools and solution concepts,	Homework assignments Exam
2	Critical thinking and problem solving	analyse strategic situations and the incentives of players therein, and to derive predictions about behaviour	Homework assignments Blog entry Exam
3a	Written communication	Apply game theoretic tools to real-world situations and derive predictions	Blog entry
3b	Oral communication		Blog entry
4	Teamwork	work collaboratively to complete a task.	In-class discussions
5a.	Ethical, environmental and sustainability considerations	Not specifically addressed in this course.	
5b.	Social and cultural awareness	Not specifically addressed in this course.	

3   LEARNING AND TEACHING ACTIVITIES

3.1   Approach to Learning and Teaching in the Course

The teaching philosophy of this course is based on the "Guidelines on Learning that Inform Teaching at UNSW" (http://www.guidelinesonlearning.unsw.edu.au). Specifically, the lectures, tutorials and assessment have been designed to actively engage students, and to create a climate of inquiry, dialogue, and creativity among students and between students and teacher. The lecturer aims to provide meaningful and timely feedback to students to improve learning outcome.

3.2   Learning Activities and Teaching Strategies

Through making decisions in classroom experiments, during each meeting, you will experience many different strategic situations first hand. This trains your empathy, strategic thinking, and social interaction skills.

During the lecture, descriptions of the situations (experimental instructions) and a number of questions on each experiment will be discussed. The questions guide you in the analysis of the situations and data. Analysing the situations and your own decisions with formal and informal tools lets you practise logical thinking, sharpens your economic intuition, and improves your knowledge about social and economic behaviour of real people.

During the semester, students complete a blog entry, describing a real-life business application of the topics covered in previous lectures. The analysis of these examples sharpens your understanding of strategic interactions in your business context and develops tools for the effective communications of strategic thinking.

Necessary game theoretical background will be provided to you in lecture form. Lecture slides will be posted online after class. Understanding the theory will give you more insight into strategic behaviour, and improve your analytical skills.

4 ASSESSMENT

4.1 Formal Requirements

In order to pass this course, you must achieve a composite mark of at least 50.

4.2 Assessment Details

Assessment Task	Weighting	Length	Due Date
1. Blog entry	15%	See 4.3 below	See 4.3 below
2. Homework	10%	See 4.4 below	Weeks 5 and 11
3. Midterm exam	25%	See 4.5 below	Week 7
4. Final exam	50%	See 4.6 below	University exam period

4.3 Blog entries

Students are expected to post a blog entry on the course Moodle page at some point during the semester. The blog entry is to describe an application of course material to a real-world business problem (current or past). Precise guidelines will be available on the course website.

Students can choose what course topic to use in writing their blog post, but a blog post on any given topic must be posted within 1 week of when that topic is covered in class.

4.4 Homework

Two homework assignments will be marked in written form, each worth 5%. These are meant to give students practice for the final exam. Homework assignments are due at the beginning of class in weeks 5 and 11. Late submissions will not be accepted. Students who cannot attend classes when assignments are due can submit their homework via email to the lecturer by 5:50pm on the day when the assignment is due.

4.5 Midterm exam

A midterm exam will be administered at the beginning of class in week 7. This exam will cover material from weeks 1-6.

4.6 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

Your suggestions, comments and observations with respect to content of the course, delivery of content, and assessment tasks are welcome, as they help to improve the course in the future. Feel free to communicate your views directly to the lecturer. We will seek your feedback also through UNSW's myExperience Survey Tool.

6   COURSE RESOURCES

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

Resources available to students consist of:
- Classroom experiment instructions – will be provided in each class
- Data on experiment outcomes – will be provided online after class
- Lecture slides – will be provided online after class

Main suggested reading:
- Avinash K. Dixit, Barry J. Nalebuff: The Art of Strategy: A Game Theorist's Guide to Success in Business and Life. W. W. Norton & Company, 2008.

Additional literature:
- Avinash K. Dixit, Susan Skeath, and David Reiley, Games of Strategy. 3rd edition. W.W. Norton and Company, 2010.
  http://www.amazon.com/dp/0393117510/
- Charles A. Holt: Market, Games & Strategic Behavior. Addison Wesley, 2006.
  http://www.amazon.com/dp/0321419316/
- Avinash K. Dixit and Barry J. Nalebuff: Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life. W. W. Norton & Company, 1993.
  http://www.amazon.com/dp/0393310353/
- Adam C. Brandenburger and Barry J. Nalebuff: Co-Opetition : A Revolution Mindset That Combines Competition and Cooperation : The Game Theory Strategy That's Changing the Game of Business. Doubleday Business, 1994.
  http://www.amazon.com/dp/0385479506/
- Tim Harford: The Undercover Economist: Exposing Why the Rich Are Rich, the Poor Are Poor--and Why You Can Never Buy a Decent Used Car! Random House, 2007. http://www.amazon.com/dp/0345494016/

7 COURSE SCHEDULE

Week	Lecture Date	Topic	Assessment
Week 1	2 March	Introduction to game theory, dominant strategies	
Week 2	9 March	Simultaneous-move games and Nash equilibrium	
Week 3	16 March	Multiple equilibria	
Week 4	23 March	Mixed strategies	
Week 5	30 March	Auctions	HW 1 due
Week 6	6 April	Auctions (continued)	
Week 7	13 April	Sequential games intro	Midterm exam
MIDSEMESTER BREAK	**20 April**	**NO LECTURE**	
Week 8	27 April	Sequential games: oligopoly, threats, and bargaining (continued)	
Week 9	4 May	Information: screening and signalling	
Week 10	11 May	Information: screening and signalling (continued)	
Week 11	18 May	Repeated games, commitment and reputation	HW 2 due
Week 12	25 May	Review	

The schedule might be subject to changes.