ECON5111
ECONOMICS OF STRATEGY

Course Outline
Semester 1, 2015

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, Plagiarism and Key Dates. It also contains the BUSINESS SCHOOL PROGRAM LEARNING GOALS.
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1 STAFF CONTACT DETAILS
Lecturer: Aleksandra Balyanova
Email: a.balyanova@unsw.edu.au
Consultation hours: By appointment

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 Mondays 6 – 9pm in Colombo Theatre C.

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.

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

This course helps you to achieve the following learning goals:

<table>
<thead>
<tr>
<th>Course Learning Outcomes</th>
<th>Course Assessment Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>On successful completion of the course, you should be able to:</td>
<td>This learning outcome will be assessed in the following items:</td>
</tr>
</tbody>
</table>

| 1 | Knowledge | Demonstrate a basic understanding of game theoretical tools and solution concepts. | • Homework assignments  
• Exams |
| 2 | Critical thinking and problem solving | Analyse strategic situations and the incentives of players therein, and to derive predictions about behaviour, evaluate and analyse data of actual decisions made in strategic situations, and derive conclusions. | • Homework assignments  
• Blog entries  
• Exams |
| 3a | Written communication | Present and discuss findings from that strategic analysis and evaluation of actual decisions. | • Homework assignments  
• Blog entries  
• Exams |
| 3b | Oral communication | Present and discuss findings from that strategic analysis and evaluation of actual decisions. | • Homework assignments  
• Blog entries  
• Exams |
| 4 | Teamwork | Work collaboratively to complete a task. | • Homework assignments |
| 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 three blog entries, describing real-life business applications 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

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Weighting</th>
<th>Length</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Blog entries</td>
<td>15%</td>
<td>See 4.3 below</td>
<td>See 4.3 below</td>
</tr>
<tr>
<td>2. Homework</td>
<td>10%</td>
<td>See 4.4 below</td>
<td>Weeks 5 and 11</td>
</tr>
<tr>
<td>3. Midterm exam</td>
<td>25%</td>
<td>See 4.5 below</td>
<td>Week 7</td>
</tr>
<tr>
<td>4. Final exam</td>
<td>50%</td>
<td>See 4.6 below</td>
<td>University exam period</td>
</tr>
</tbody>
</table>

4.3 Blog entries

Students are expected to post a total of 3 blog entries on Moodle throughout the semester, each worth 5%. Each blog entry describes an application of course material covered that week to a real-world business problem. Precise guidelines will be available on the course website. Each student must submit a blog entry by the beginning of class in Weeks 4, 8 and 12. Blog entries must refer to material covered in the previous 4 classes.

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 Final exam

The final exam will be held in the University examination period. It will cover the entire course. Students should note that, given changes in content and method of the course, past exam papers for this subject may be misleading.
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
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 Course and Teaching Evaluation and Improvement (CATEI) Process.

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:

Additional literature:
## COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assessment</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>2 March</td>
<td>Introduction to game theory, dominant strategies</td>
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<tr>
<td>Week 2</td>
<td>9 March</td>
<td>Simultaneous-move games and Nash equilibrium</td>
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<tr>
<td>Week 3</td>
<td>16 March</td>
<td>Multiple equilibria</td>
<td></td>
</tr>
<tr>
<td>Week 4</td>
<td>23 March</td>
<td>Mixed strategies</td>
<td>Blog entry 1 due</td>
</tr>
<tr>
<td>Week 5</td>
<td>30 March</td>
<td>Auctions</td>
<td>HW 1 due</td>
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<tr>
<td></td>
<td>6 April</td>
<td>Mid-semester break</td>
<td></td>
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<tr>
<td>Week 6</td>
<td>13 April</td>
<td>Auctions (continued)</td>
<td></td>
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<tr>
<td>Week 7</td>
<td>20 April</td>
<td>Sequential games: oligopoly, threats, and bargaining</td>
<td>MIDTERM EXAM</td>
</tr>
<tr>
<td>Week 8</td>
<td>27 April</td>
<td>Sequential games: oligopoly, threats, and bargaining</td>
<td>Blog entry 2 due</td>
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<td></td>
<td></td>
<td>(continued)</td>
<td></td>
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<tr>
<td>Week 9</td>
<td>4 May</td>
<td>Information: screening and signalling</td>
<td></td>
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<tr>
<td>Week 10</td>
<td>11 May</td>
<td>Information: screening and signalling (continued)</td>
<td></td>
</tr>
<tr>
<td>Week 11</td>
<td>18 May</td>
<td>Repeated games, commitment and reputation</td>
<td>HW 2 due</td>
</tr>
<tr>
<td>Week 12</td>
<td>25 May</td>
<td>Recap</td>
<td>Blog entry 3 due</td>
</tr>
</tbody>
</table>

The schedule might be subject to changes.