

School of Economics and Finance

## **ECON 314 GAME THEORY**

Trimester 1, 2016

### **COURSE OUTLINE**

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#### **Names and Contact Details**

##### Lecturer- Coordinator

Jack Robles

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Email: [jack.robles@vuw.ac.nz](mailto:jack.robles@vuw.ac.nz)

Room: RWW 117

Mail Box: RH Mezzanine **Box #88**

Office Hours: Mon & Wed 3:40 to 4:30

#### **Prescription**

This course introduces and develops game theory and its applications.

#### **Course Learning Objectives**

By the end of this course, students should be able to:

1. apply microeconomic theory at an advanced undergraduate level
2. formally describe simple economic settings in game theoretic terms
3. identify Nash equilibria in pure and mixed strategies for a range of simple games
4. identify a range of types of equilibria, such as subgame perfect Nash equilibria, Bayesian Nash equilibria and perfect Bayesian equilibria, for appropriate games.

#### **Course Content**

1. Decision Theory (Ch5)
2. Extensive Form Games (Ch2 and Ch3)
3. Normal Form Games and the 'Bayes Normal Form' (Ch3 and Ch24)
4. Common Knowledge and Rationalizability (in the normal form) (Ch4, Ch6, and Ch7)
5. Nash Equilibrium (Ch9 and Ch11)
6. Subgame Perfect Nash Equilibrium (Ch14 and Ch15)
7. Bargaining (Ch18 (pp 230-236) and Ch 19)
8. Repeated Games (Ch22)
9. Adverse Selection and Signalling (Ch 26, Ch27, Ch28, and Ch29)
10. Extensive Form Rationalizability
11. Extra topics: Reputation (Ch29,) Zero Sum Games (Ch12,) and Cost Sharing.

#### **Readings**

Watson, "Strategy; An Introduction to Game Theory" 3rd edition.

## **Class Times and Room Numbers**

### Lecture Times and Location

Monday & Wednesday: 2:40 PM to 3:30 PM in GB LT 4

### Tutorial Times and Location

Two of the following times/places will be chosen:

Thursdays: 9:30 in RWW412

Fridays: 9:30 in RWW222, 12:40 in RWW126, 1:40 in RWW223, 2:40 in RWW220

There are NO tutorials weeks 1,2, 6, and 9 (March 3,4 and 10,11; April 7,8 and May 5,6)

## **Assessment Requirements**

The assessment for the course consists of:

Assignment 1	10%	Thursday, April 14
Assignment 2	10%	Thursday, June 2
Test (1 hour)	30%	6:40 PM Tuesday, May 3 (GB LT 4)
Final Exam (2 hour)	50%	Date TBA

The Assessment Handbook applies to all VUW courses: see

<http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>.

If you cannot complete an assessment or sit the final, then see

[www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat](http://www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat)

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

## **Penalties**

Assignments are to be placed in in Mezzanine Floor mail **Box # 88** by 5PM of the due date.

Assignments will not be accepted more than 1 week late, and will have 5% deducted per day (rounded up) late. Late assignments must be dated by an SEF staff member.

## **Communication of Additional Information**

Additional information will be announced either in lecture or on blackboard.

## **Trimester Dates**

Teaching Period: Monday 29<sup>th</sup> February – Friday 3<sup>rd</sup> June

Study Period: Monday 6<sup>th</sup> June – Thursday 9<sup>th</sup> June

Examination Period: Friday 10<sup>th</sup> June – Wednesday 29<sup>th</sup> June (inclusive)

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period. The final examination for this course will be scheduled at some time during the above Examination Period.

### **Expected Workload**

This is a 15 point course which implies a workload = 150 hours. Hours expected per week = 11.5 (over 13 weeks), or 12.5 (over 12 weeks). This is a guide only and individual students should not feel constrained by it.

### **Withdrawal from Course**

Your fees will be refunded if you withdraw from this course on or before Friday 11<sup>th</sup> March 2016. The standard last date for withdrawal from this course is Friday 13<sup>th</sup> May 2016. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an *'Application for Associate Dean's Permission to Withdraw Late'* including supporting documentation. The application form is available from either of the Faculty's Student Customer Service Desks or [online](#).

### **Class Representative**

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the Course Coordinator and the class. The class representative provides a communication channel to liaise with the Course Coordinator on behalf of students.

### **Student feedback**

This course was last offered in Trimester 2, 2015. Of note are the scores:

"I value highly what I have learned in this course" Score 1.9

"Overall, I would rate the quality of this course as" Score 1.9

Student feedback on University courses may be found at [www.cad.vuw.ac.nz/feedback/feedback\\_display.php](http://www.cad.vuw.ac.nz/feedback/feedback_display.php).

### **Link to general information**

For general information about course-related matters, go to <http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>