

# School of Economics and Finance

# ECON 314: Microeconomics: Information & Markets

Trimester Two 2009

# COURSE OUTLINE

| Course lectu  | rers   |          |  |                                |  |
|---------------|--------|----------|--|--------------------------------|--|
| Paul Calcott  | RH 324 | 463-6585 | paul.calcott@vuw.ac.nz                         | (course coordinator)           |  |
| Jack Robles   | RH 317 | 463-7492 | jack.robles@vuw.ac.nz                          |                                |  |
| Lectures:     | RH LT3 | Mon,     | Wed & Thur 15:40 - 16:30                       |                                |  |
| Tutorials:    | RWW 1  | 25 Thur  | Thur 10:30-11:20, 11:30-12:20, or 13:40-14:30. |                                |  |
| Office hours: |        | Mon      | 12:30-1:30 (Paul), Mon 1:00                    | )-2:30, Wed 10:30-11:30 (Jack) |  |

## Textbook

Joel Watson, *Strategy: an introduction to game theory*, 2nd ed. Norton, 2008, ISBN-10: 0-393-92934-5

It costs \$109.99 at Vic Books. The first edition has been used in recent years (ISBN 0-393-97648-3). If you find a copy, it will probably be fine, but you may wish to borrow the second edition every so often. Your ECON 201 textbook may also be useful for an introductory treatment of some topics. Some alternative books are listed below.

| Topics                         | chapters      | Da            | ates & assessment              |
|--------------------------------|---------------|---------------|--------------------------------|
| Decision theory                |               | 13 July       | first lecture                  |
| Game theory                    | 2 - 4, 14, 24 | 14-16 July    | tutorial signup                |
| Nash equilibrium               | 9-12,26       | 23 July       | first tutorial                 |
| Rationality & common knowledge | 6-7           | 23 July       | last day to withdraw           |
| Extensive form games           | 15            |               | without losing fees            |
| Bargaining and efficiency      | 18,19         | 19 Aug        | assignment due (worth $15\%$ ) |
| Incomplete information         | $24,\!27$     | 24 Aug        | midterm break                  |
| Signalling                     | 28-29         | 7 Sep         | lectures resume                |
| Implementation in contracts    | 13,20         | 9 Sep         | test (worth $20\%$ )           |
| Incomplete contracts           | 21            | $25 { m Sep}$ | last day to withdraw           |
| Repeated games                 | 22-23         |               | without Dean's approval        |
| Risk sharing and moral hazard  | 25            | 12 Oct        | assignment due (worth $15\%$ ) |
|                                |               | 19 Oct-26 Oct | study period                   |
|                                |               | 27 Oct-14 Nov | 3 hour exam (worth $50%$ )     |

There are no mandatory course requirements.

Students should be able to attend an exam at the University at any time during the examination period (27 Oct-14 Nov). The test will be held in RH LT1 at 6:30pm on 09/09/2009. Silent non-programmable calculators will be permitted in the test and in the exam. Withdrawal info: http://www.victoria.ac.nz/home/admisenrol/payments/withdrawlsrefunds.aspx

### Mathematical requirements

Students are expected to understand basic calculus, including partial differentiation, solving optimization problems and using the chain rule. You should expect more mathematical notation than in ECON 201. But if you have successfully completed QUAN 111 you should be well equipped for this course.

To be successful in ECON 314, it is important to practice solving models. You will have many opportunities to do this. First, there will be tutorial exercises. Second, the textbook has problems to solve at the end of each chapter. Finally, extra problems will be available in the Course Materials folder.

#### **Course delivery**

There will be three 50 min lectures per week. In addition there will be a tutorial in each week except week 1. Attendance is strongly recommended but not compulsory. Tutorials will largely to devoted to solving problems distributed previously, in the lectures or on blackboard. Model answers will not be provided for these tutorial questions.

#### **Tutorial signup**

Enrol in a tutorial online at https://signups.victoria.ac.nz/. This will be available from 12:30pm Tuesday 14 July until 12:30pm Thursday 16 July. If you are limited in the tutorial times you can attend, you should select a tutorial early.

#### Blackboard

Course documents and other information will be available on the blackboard website. Announcements will also be posted there. http://blackboard.vuw.ac.nz.

#### Assignments

The assignments are designed to be challenging. Although they will not involve advanced mathematics, they will require considerable thought. It is perfectly acceptable for students to co-operate with each other in working on the assignments. However it is not acceptable to directly copy from another student, or to allow another student to copy your work.

Assignments that are late without permission will be penalised 5% (of the total available marks) per day. Assignments may be handed in at the lecture or put in box 83 on the mezzanine floor of Rutherford House by 5pm on the due date (19 Aug & 12 Oct).

#### **Optional reading**

Dutta, P., *Strategies and games: theory and practice*, 1999, MITP, HB144 D979 S (user friendly) Fudenberg, D., and J Tirole, *Game theory*, 1991, MITP, (intimidating)

Gardner, R., Games for business and economics, 1995, John Wiley, (user friendly)

Gibbons, R., Game theory for applied economists, 1992, PUP, HB144 G441 G

Hargreaves Heap, S and Y Varoufakis, *Game theory: a critical introduction*, 1995, Routledge.

Kreps, D., A course in microeconomic theory, 1990, PUP, chapters 11-14 (graduate level).

Rasmusen, E., Games and information, 3rd ed, Blackwell, 2001.

Romp, G., *Game theory: introduction and applications*, OUP, 1997. HB144 R766 G (user friendly)

## Expected workload

The total expected workload is 240 hours, comprising 18-20 hours per week.

## Learning Objectives:

Students passing this 300 level course in microeconomics should be able to:

- 1. apply microeconomic theory at an advanced undergraduate level
- 2. formally describe simple economic settings in game theoretic terms
- 3. reason through the incentives provided by simple interactive settings
- 4. identify equilibria in a range of simple games
- 5. explain the implications of game theory for contractual design in the presence of moral hazard
- 6. explain and use the distinction between moral hazard and adverse selection
- 7. explain why contracts are typically incomplete.

The assignments will address objectives 1-3. Any of the objectives may be addressed in the exam.

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 audit purposes. The findings may be used to inform changes aimed at improving the quality of FCA programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

### Links:

Academic Integrity & Plagiarism: http://www.victoria.ac.nz/home/study/plagiarism.aspx General University Policies & Statutes: http://www.victoria.ac.nz/home/about/policy/academic.aspx Faculty of Commerce & Administration Offices: http://www.victoria.ac.nz/fca/studenthelp/Contactus.aspx Manaaki Pihipihinga Programme: http://www.victoria.ac.nz/st\_services/mentoring/