## VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wananga o te Upoko o te Ika a Maui



| ECON 31  | 4 Microeconomics: Information and Markets<br>School of Economics and Finance |                            |                                   |  |                            | 2005 2/3 |
|--|--|----------------------------|-----------------------------------|--|----------------------------|----------|
| Staff Paul Calcott Luke Geldermans Jack Robles |  | RH 324<br>RH 330<br>RH 317 | 463-6585<br>ext. 8520<br>463-7492 | paul.calcott@vuw.ac.nz<br>luke.geldermans@vuw.ac.nz<br>jack.robles@vuw.ac.nz |                            |          |
| Lectures:                                      | Monday,  | Wednesday                  | & Thursday                        | 1:40 - 2:30  | GB LT3                     |          |
| Tutorials:                                     | Wedneso<br>Wedneso   | v                          |                                   | 9:30 - 10:20<br>10:30 - 11:20  | RLWY 224, o<br>RLWY 224, o |          |

This course deals with game theory, including the economics of asymmetric information and contracts. It should be valuable not only for students who continue in microeconomics, but also for those with an interest in many other areas of economics including industrial organisation, law and economics, corporate finance, labour economics, public economics and managerial economics.

9:30 - 10:20

10:30 - 11:20 RLWY 224

RLWY 224, or

# **Topics**

Thursday

Thursday

| 1.  | Introduction                                | chs 1-5                  |
|-----|---|--------------------------|
| 2.  | Rationalizability and Nash equilibrium      | chs 6-11                 |
| 3.  | Sequential games                            | $chs 14-16 \ and \ 19$   |
| 4.  | Repeated games                              | chs 22 and 23            |
| 5.  | Bayesian games and auctions                 | chs 24 and 26, pp264-268 |
| 6.  | Negotiation and efficiency                  | ch 18, pp191-195         |
| 7.  | Complete contracts                          | ch 13, pp195-197         |
| 8.  | Incomplete contracts                        | pp121-122, ch 21         |
| 9.  | Moral hazard                                | ch 25                    |
| 10. | Adverse selection and screening             | pp262-264                |
| 11. | Perfect Bayesian equilibrium and signalling | chs 28 and 29            |
| 12. | Extensive form rationalizability            |                          |

## Assessment

| Assignment 1      | Due 5pm Monday 1 August          | worth $15\%$ of final grade |
|-------------------|----------------------------------|-----------------------------|
| Test              | 6:30pm Monday 8 August in RH LT1 | worth $20\%$ of final grade |
| Assignment 2      | Due 5pm Wednesday 5 October      | worth $15\%$ of final grade |
| 3 hour final Exam | 10 Oct - 5 Nov                   | worth 50% of final grade    |

Late assignments will attract a penalty of 5% a day. Silent non-programmable calculators will be allowed in the exam.

## Reading

The textbook is: Joel Watson, Strategy: an introduction to game theory, 2002.

It costs \$109.95 at the bookshop and a copy is available in the library. For some topics, further readings will be available on blackboard. Your ECON 201 textbook may also be useful for an introductory treatment of some topics. Some alternative books, many of which can be found in the library, are listed below.

## Mathematical requirements

ECON 314 assumes some knowledge of calculus and algebra. You should expect more mathematical notation than in ECON 201. Students who have successfully completed QUAN 111 should be well equipped for this course. But if you can't remember how to partially differentiate, it will pay to do a little revision.

#### Blackboard

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

### **Tutorials**

Tutorials start in week 2. To sign-up for a tutorial you must complete the form at http://www.vuw.ac.nz/staff/richard\_martin/\_scripts/econ314tutorial2005.php. You will need to enter your student ID, your SCS username and your first three choices for a tutorial time. The deadline to do this is 5pm Wednesday 6 July. Attendence is recommended but not compulsory. Model answers will not be provided for tutorial questions.

#### Assignments

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.

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% a day. Assignments may be handed in at the lecture or put in box 78 on the mezzanine floor of Rutherford House. Questions on the test and the exam will be conceptually easier than those in the assignments.

#### Optional reading

Dutta, P., Strategies and games: theory and practice, MIT Press, 1999. HB144 D979 S (user friendly)

Fudenberg, D., and J Tirole, Game theory, 1991, MIT (intimidating)

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

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

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

Kreps, D., A course in microeconomic theory, 1990, P.U.P. (chapters 11-14).

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

Romp, G., Game theory: introduction and applications, O.U.P, 1997. HB144 R766 G (user friendly)

## General University policies and statutes

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

#### Student Conduct and Staff Conduct

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at: http://www.vuw.ac.nz/policy/StudentConduct.

The policy on Staff Conduct can be found on the VUW website at: http://www.vuw.ac.nz/policy/StaffConduct.

### **Academic Grievances**

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website:

http://www.vuw.ac.nz/policy/AcademicGrievances.

### Academic integrity and plagiarism

Academic integrity is about honesty - put simply it means **no cheating**. All members of the University community are responsible for upholding academic integrity, which means staff and students are expected to behave honestly, fairly and with respect for others at all times.

Plagiarism is a form of cheating which undermines academic integrity. Plagiarism is **prohibited** at Victoria.

The University defines plagiarism as follows: Plagiarism is presenting someone else's work as if it were your own, whether you mean to or not.

'Someone else's work' means anything that is not your own idea, even if it is presented in your own style. It includes material from books, journals or any other printed source, the work of other students or staff, information from the Internet, software programmes and other electronic material, designs and ideas. It also includes the organization or structuring of any such material.

### Plagiarism is not worth the risk.

Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct (www.vuw.ac.nz/policy/studentconduct) and may be penalized severely. Consequences of being found guilty of plagiarism can include:

- an oral or written warning
- suspension from class or university
- cancellation of your mark for an assessment or a fail grade for the course

Find out more about plagiarism and how to avoid it, on the Universitys website at: www.vuw.ac.nz/home/studying/plagiarism.html.

### Students with Disabilities

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your individual needs and the options and support that are available. Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email: disability@vuw.ac.nz. The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

# Student Support

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Coordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at http://www.vuw.ac.nz/st\_services/ or student-services@vuw.ac.nz.

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union Building, phone 463 6983 or 463 6984, email education@vuwsa.org.nz.