

THE UNIVERSITY OF
NEW SOUTH WALES



AGSM MBA PROGRAMS

MNGT5306
STRATEGIC GAME THEORY FOR MANAGERS

COURSE OUTLINE
SESSION 3, 2009

AGSM MBA



AUSTRALIAN
SCHOOL OF BUSINESS™

THE UNIVERSITY OF NEW SOUTH WALES

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1. COURSE STAFF

Bob Marks: AGSM Room 118, bobm@agsm.edu.au, 9931 9271, contact for appointment

2. COURSE DETAILS

2.1 Teaching Times and Locations

Information about class times and location can be found by logging in the AGSM Website: <http://www2.agsm.edu.au/agsm/web.nsf/Content/MBA-CourseSchedulesandTimetables>

2.2 Units of Credit

6 units

2.3 Summary of Course

See <http://www.agsm.edu.au/bobm/teaching/SGTM.html> -- the course web page

2.4 Course Aims and Relationship to Other Courses

This course—through lectures, experiential learning, and computer simulations—will attempt to provide you with understanding of many interactions you may encounter as managers, including price wars, wars of attrition, the value of cooperation interactions, and the value of information.

Prerequisite: Basic Economics or equivalent, or instructor's permission.

SGTM is useful for all courses with “strategic” in their name, since it provides the core frameworks for strategic thinking, with applications.

2.5 Student Learning Outcomes

By the end of this course, you should be able to analyse simple strategic interactions; to understand what we mean by the Prisoner's Dilemma (and recognise such interactions in the wild); be able to solve simple games; be able to apply this learning to a real-world situation of your own choosing: business, sports, war, politics

MBA Program Learning Goals

This course contributes to the development of the MBA Program Learning Goals, which are the qualities, skills and understandings we want you to have by the completion of your degree, as indicated below:

| Course Learning Outcomes | MBA Program Learning Goals |
|--------------------------|---|
| | 1. An in-depth engagement with the relevant disciplinary knowledge in its interdisciplinary context |

| | |
|--|--|
| | 2. Team-based skills |
| | 3. Critical and analytical thinking |
| | 4. Decision-making and problem-solving |
| | 5. An ability to manage change |

3. APPROACH TO LEARNING AND TEACHING IN THE COURSE

Game theory provides a simple, but rich, framework for analysing once-off and repeated interplay between people or firms, where the manner in which each reacts depends upon the other's reaction: strategic interaction. These interactions occur in markets, in organisations, and in the household.

The main avenue of learning will be the lectures, with three take-home assignments to demonstrate mastery of the techniques learnt in the classroom. The midterm exam will provide motivation to become familiar with the concepts and techniques. If necessary, there will be a few extra classes (tutorials) to discuss the assignments.

4. ASSESSMENT

4.1 Formal Requirements

In order to pass this course, you must:

- achieve a composite mark of at least 50; and
- make a satisfactory attempt at all five assessment tasks (see below).

4.2 Assessment Details

| Assessment Task | Weighting | Learning Outcomes assessed | Length | Due Date |
|--|-----------|---|----------------------|----------------------|
| 3 take-home assignments | Each 10% | Correctly solve problems; imaginative examples. | As required: 5-8 pp. | Fortnightly, TBA. |
| Mid-term exam, in-class, 1 hour, with crib sheet | 25% | Use understanding to solve simple problems. | | End of Week 7 |
| Final (team) project | 45% | Application of learning to a topic you choose | See web page. | Beginning of Week 14 |

There will be three individual assignments, a midterm exam, and a short term project (which may be done in groups).

1. The first assignment will be handed out in Week 2, and is due in Week 4. This assignment is worth 10% of the final grade, and must be done individually, although students may talk (but not copy others' work).

2. The second assignment will be handed out in Week 4 and is due in Week 6. This assignment is worth 10% of the final grade.

3. The one-hour, in-class midterm exam will be held at the end of Week 7; a single A4 crib sheet is allowed into the exam, which is otherwise closed-book.

4. The third assignment will be handed out in Week 8, and is due in Week 10. This assignment is worth 10% of the final grade.

5. Your project is due by 4 pm on Monday, Week 14, and is worth 45% of the final grade. It may be done in groups of one, two, or three students. Please hand in a one- or two-page outline of the project topic by Week 4, outlining the issue, the players, your data sources, and how you intend analysing it. I expect applications of the framework described in class, not further theory. Groups will present brief outlines of their work on the last week of class. See the Evaluation Guidelines at: <http://www.agsm.edu.au/bobm/teaching/SGTM/Eval.pdf>

6. You should start thinking about a project as soon as possible. Please come and talk to me about (a) possible topics of application, and (b) if you want to form a team to do it. You might like to look at some projects from previous years. I'd like decision trees, game trees, and/or payoff matrices. Look for issues with strategic interactions between players, whether simultaneous or sequential. (But avoid movies especially with (1) extensive chases, (2) more than one person shot dead with revolver or pistol.)

For guidelines on formatting and presenting your assignment, see [MBA Policies and Procedures/ Assessment and Examinations](#). See the assignments and, for the term project: <http://www.agsm.edu.au/bobm/teaching/SGTM/Notes.html>

Assignment Submission Procedure; Assignments are due by 4 pm on their due day. Submission can either be hardcopy at MBA Reception, or via email to bobm@agsm.edu.au.

Further information on assessment policies and guidelines can be found on the [MBA website/Policies and Procedures/Assessment-Examinations](#)

4.3 Late Submission

Refer to policy on [MBA website/Policies and Procedures/Assessment-Examinations](#).

Failure to submit assessment on time, where approval of an extension has not been granted, and where grounds for an extension do not exist, will result in a penalty of 5% of the total marks of the assessment item being applied per 24-hour period or part thereof which the assignment is late.

5. ACADEMIC HONESTY AND PLAGIARISM

Plagiarism is the presentation of the thoughts and words of another as your own. The University regards plagiarism as a form of academic misconduct, and has very strict

rules regarding it. For advice on acknowledging your sources and referencing correctly to avoid plagiarism see the AGSM manual, *Managing Your Learning* (Section 8) and the [UNSW Plagiarism and Academic Integrity webpage](#).

You should also familiarise yourself with the information regarding academic misconduct and the appeals process on the UNSW website:

Academic Misconduct

<https://my.unsw.edu.au/student/academiclife/assessment/AcademicMisconductStudentMisconduct.html>

Student Complaint Policy

http://www.policy.unsw.edu.au/policy/Student_Complaint_Policy.htm

6. COURSE RESOURCES

See <http://www.agsm.edu.au/bobm/teaching/SGTM.html> -- the course web site.

7. COURSE EVALUATION AND DEVELOPMENT

Mid and end of session feedback is sought from students about the courses offered in the School and continual improvements are made based on this feedback. Significant changes to courses and programs within the School are communicated to subsequent cohorts to students.

For this year specific change was made, based on student feedback, to introduce the two week Integrative Experience in Weeks 11 & 12 of Session in order for students to apply all the disciplines learned in all the core courses and included:

- Continue to provide substantive foundation
- Facilitate integration of concepts from core subjects
- Simulation, competition
- Substantive integration with adaptive leadership skills
- Finance, Ops, Data Analysis, Marketing, Strategy

8. STUDENT RESPONSIBILITIES AND CONDUCT

AGSM's reputation is dependent on the conduct of the members of its community. We expect the conduct of our students to be fair and responsible at all times.

Information and AGSM policies on student responsibilities and conduct, including academic misconduct, equity, and grievance procedures, can be found on the MBA website: [Policies and Procedures-Students Rights and Responsibilities](#).

For information on AGSM attendance requirements, procedures for granting special consideration and supplementary examinations, see [Policies and Procedures-Assessment-Examination](#).

Students are also expected to be familiar with and adhere to University of New South Wales policies in relation to general conduct and responsibilities. See [UNSW A-Z Student Guide](#). See, especially, information on 'Attendance and Absence', 'Academic Misconduct', 'Assessment Information', 'Examinations', 'Special Consideration',

'Student Responsibilities' and 'Workload', and policies such as 'Occupational Health and Safety': <https://my.unsw.edu.au/student/atoz/OccupationalHealth.html>

From time to time, the University will send important announcements to your university e-mail address without providing you with a paper copy. You will be deemed to have received this information. It is also your responsibility to keep the University informed of all changes to your contact details

9. ADDITIONAL STUDENT RESOURCES AND SUPPORT

The University and the Australian School of Business provide a wide range of support services for students, including:

- **AGSM manual: *Managing Your Learning***
- **ASB Education Development Unit (EDU)** (www.business.unsw.edu.au/edu)
Academic writing, study skills and maths support specifically for ASB, AGSM and MBT students. Services include workshops, online and printed resources, and individual consultations. EDU Office: Room GO7, Ground Floor, ASB Building (opposite Student Centre); Ph: 9385 5584; Email: edu@unsw.edu.au
- **UNSW Learning Centre** (www.lc.unsw.edu.au)
Academic skills support services, including workshops and resources, for all UNSW students. See website for details.
- **Library training and search support services:** <http://info.library.unsw.edu.au>
- **e Learning information:** elarning@agsm.edu.au
- **UNSW IT Service Desk:** Technical support for problems logging in to websites, downloading documents etc. Library, Level 2; Ph: 9385 1333.
Website: www.its.unsw.edu.au/support/support_home.html
- **UNSW Counselling Service** (<http://www.counselling.unsw.edu.au>)
Free, confidential service for problems of a personal or academic nature; and workshops on study issues such as 'Coping With Stress' and 'Procrastination'.
Office: Level 2, Quadrangle East Wing; Ph: 9385 5418
- **Student Equity & Disabilities Unit** (<http://www.studentequity.unsw.edu.au>)
Advice regarding equity and diversity issues, and support for students who have a disability or disadvantage that interferes with their learning. Office: Ground Floor, John Goodsell Building; Ph: 9385 4734

10. COURSE SCHEDULE

- See the Course outline at <http://www.agsm.edu.au/bobm/teaching/SGTM.html>