



THE UNIVERSITY OF
NEW SOUTH WALES
SYDNEY · 2052 · AUSTRALIA

SCHOOL OF SURVEYING & SPATIAL INFORMATION SYSTEMS

GMAT 1400

LAND RESOURCE ASSESSMENT

Course Outline – Session 2, 2009

Version: 14/07/2009

This document, and other material, is available at the Course Website:
<http://www.gmat.unsw.edu.au/gmat1400>

(User name and password supplied in class)

Page	Table of Contents
2	Staff involved in the course and their contact details
2	Educational Aspects of the course
4	Course schedule
4	Assessment in the course
4	Course resources
5	Administrative matters
5	Rules

1. Staff involved in the Course and their Contact Details

1.1 Lecturer(s): B Harvey and M Green

Email: b.harvey@unsw.edu.au Office: EE424 Phone: 9385-4178

Email: michael.green@unsw.edu.au Office: EE420 Phone: 9385-4193

There will be several guest lecturers in this course.

Tutorial assistance on Thursday's by P Mumford EE413C

1.2 Staff absences during session:

Students should check their emails regularly in case lectures are re-scheduled through the unforeseen absence of a lecturer. B Harvey will not be at UNSW in week 2 due to a year 3 survey camp.

2. Educational Aspects of the Course

Land is the basis of much of Australia's wealth, and "real estate" is the most valuable asset owned by the average Australian. However, land has many aspects, physical, social, political, economic and environmental. This course studies the concept of land from these various viewpoints, including: topographic and geomorphological descriptions, land cover classification (soils and vegetation), land use (rural and urban), land value and economics, land as a recreational resource (national parks, etc), and ecological issues. An important component of the course is to discuss Land as Real Estate, hence attention will be paid to land ownership and rights to use and redevelopment. Land from the cultural, social and spiritual perspectives. Native and other forms of "title". Land, water and air space rights. Law of the Sea and sovereign rights over marine resources. State, Local and Federal Government jurisdictions over land.

2.1 How this course relates to others in the BE Surv & SIS program

This course prepares students for later courses in the Surveying and SIS program. GMAT1400 Land Resource Assessment gives students an understanding of the description on land and property in Cadastral courses and of the impact of development designs in Land Management and Development Projects. The course should also be interesting and useful for Engineering and other students who are interested in land and its resources, navigation or land development and choose this course as an elective but are not in the Surveying and SIS program.

2.2 Aim of the Course

To give students an understanding of the wider meaning of land and the impact of man on land and be able to communicate with others on these topics. Also, to improve students visual abilities with maps and spatial images of land including plans, contours and 3D views.

2.3 Learning Outcomes

By the end of this session you should be able to appreciate the full impact of man and development on the environment. In addition, skills will be developed in visualisation of landscapes: field sketches and plans, maps, 2D contouring and 3D computer graphic pictorial views; as well as in sun direction calculations and shadow diagrams.

2.4 Teaching Strategies

Lectures, Field excursions and Tutorials. Course includes a one day field exercise on navigation in a National Park.

2.5 Suggested Learning Methods

Attendance at lectures is important for all topics and taking notes is especially for the guest lectures. It is recommended that students obtain and read material on the topic to be delivered prior to the lecture on that topic.

2.6 UNSW Graduate Attributes

This course provides an environment that fosters in our students the following attributes is listed:

the skills involved in scholarly enquiry	Significant
an in-depth engagement with relevant disciplinary knowledge in its interdisciplinary context	Significant
the capacity for analytical and critical thinking and for creative problem solving	Some
the ability to engage in independent and reflective learning	Some
the skills to locate, evaluate and use relevant information (Information Literacy)	Some
the capacity for enterprise, initiative and creativity	Minimal
an appreciation of and respect for, diversity	Significant
a capacity to contribute to, and work within, the international community	Some
the skills required for collaborative and multidisciplinary work	Significant
an appreciation of, and a responsiveness to, change	Significant
a respect for ethical practice and social responsibility	Significant

3. Proposed Course Schedule

Any changes will be notified in the class or in the course website. In case of inclement weather, some practical classes may need to be rescheduled.

Wk	3 hr Lecture (Land, M Green) Tuesdays 9-12 Red Centre M032	2hr Lecture & tutorial (Maps, B Harvey) Thursdays 10-12 CE 713
1	Legal & Title System of NSW Land Titles & Boundaries of NSW - Michael Green	Introduction to and Organisation of 'maps' part of course. Spatial Visualisation. Reconnaissance surveys, recovery sketches.
2	Guide to preparation of reports	Field sketch mapping exercise on campus
3	Civil & Geotechnical Engineering - Alexandra Vella	Landscapes: plans & contours, 3D views, draping Tut: Contouring & 3D landscape perspectives
4	Flora and Fauna Studies - Guy Paroissien	Topographic Maps and Cartography Tut Topographic Map skills exercise.
5	Analysis of Urban Park Michael Green	Satellite-based Earth Observation Lab Satellite-based Earth Observation <i>Guest lecturer organised by L Ge</i>
6	Native Title Indigenous Issues	Sun Shadow Diagrams. Technical Drawing Lab Calculation & field checks of direction of Sun and shadow diagrams
7	NPWS – Melanie Tyas or colleague	Interpreting technical drawings related to land, including cadastral, survey & engineering Bushwalk briefing including OHS Lab: Exercises to interpret technical drawings.
Recess		
8	Sustainability – Patrick Longfield (2hr)	Bushwalk – Heathcote National Park
9	Sustainability – Patrick Longfield (2hr)	Back up bushwalk day in case of wet weather
10	Urban Economics - Robert Tims	Class test for maps part of course
11	Real Estate - Robert Tims	Law of the Sea - by Chris Rizos
12	Revision, Course Summary - Michael Green	No lecture. Completion of Lab Exercises

4. Assessment in the Course

Assessment is in sections – B Harvey 40% and M Green 60%

(a) B Harvey's maps part of the course.

Bushwalk	5%
Lab and tut exercises	15%
Class test	20%

The final exam in the exam period will not include questions from this part of the course.

(b) M Green's assessment will include

Report on Analysis of Urban Park	20%
Reports on topics delivered by guest lecturers	20%
Final Test (Closed book)	20%

Discussions about the aims of assessment tasks and further information about the practicals and bushwalk will occur during the lectures. Some additional material will be placed on the class web site.

5. Course Resources

5.1 Lecture Material (check the course website):

<http://www.gmat.unsw.edu.au/gmat1400>

The Powerpoint lecture slides and tutorial questions for the mapping part of the course will be available for download as PDF files at the course website.

5.2 Text and Reference Books

Lecturers may recommend reading material from week to week.

6. Administrative Matters

6.1 Expected work load

At UNSW, the normal workload expectations of a student are about 150 hours per session for a 6 unit of credit, including class contact hours, preparation and time spent on all assessable work.

To assist students with the organisation of their studies, the expected workloads of the various components of the course are listed below. It is strongly suggested that students use the listed hours to plan their work during session.

Lectures	48hr
Tutorials (12x1hr)	12hr
Assignment	20hr
Field exercises	12hr
Revision of Lectures, preparation of practical/tutorial reports, background reading (approximately 4hr x 12wk)	60hr
Total	152hr

6.2 Rules

Students should read the University Calendar or Student Guide for details of University Rules and special considerations.

Students are reminded that the University regards academic misconduct as a very serious matter. Unauthorised material must not be taken into a test or examination. Any work submitted for assessment must be entirely the student's own work. The penalty for any suspected academic misconduct ranges from zero mark for the assignment or exam involved, through failure of the subject, to expulsion from the University. If absent from an examination, class test or practical, students must submit written documentation to the University, via the Student Centre in the Chancellery.

All assignments or practical reports are compulsory parts of the course and must be handed in by the due date. A mark of zero will be given for any submission which violates this rule. **OR The marks for late submissions will be reduced as follows:** -20% (of the maximum mark) for up to 24 hours after the scheduled submission time, then -10% (of the maximum mark) for each additional 24 hour period late. (For example, a student submitting a report/assignment 4 days late has his/her mark reduced by 4 if the maximum mark of the submission is 10.). Any late submission must be made before solutions are issued to the class.

If a student is unable to submit on time due to illness or other legitimate reason, then a brief written explanation must be given to the lecturer for consideration as soon as is feasible. In some cases

the lecturer may grant an extension to the submission date provided he has been contacted before the due date.

Further assessment may be granted in this course at the lecturer's discretion. If further assessment is granted then performance in tutorials may be considered as well as an oral exam including use of a computer.

If students attend less than 80% of their possible classes they may be refused final assessment.

6.3 Grievances

In the first instance all grievances should be discussed with the lecturer involved. If the problem cannot be resolved, students should contact the School's Grievance Officer in writing.