



GMAT3420 CADASTRAL SURVEYING AND LAND LAW

Semester 1, 2015

Never Stand Still

Faculty of Engineering

School of Civil and Environmental Engineering

COURSE DETAILS

Units of Credit	6	
Contact hours	4 hours per week	
Class	Thursdays 2 to 6pm	CE G6
Course Coordinator and Lecturer	Bruce Harvey (BH) email: b.harvey@unsw.edu.au office: CE414 phone: 9385-4178	
Other Lecturers	Cameron Miles (CM), Anna Allen (AA), Pat McNamara (PM)	

INFORMATION ABOUT THE COURSE

Cadastral Surveying and Land Law looks at combining legal decisions with the practical side of positioning Title boundaries. Calculation methods learnt in Survey Computations courses (GMAT1110 and GMAT2500) will be used and the course will also relate to Land Development Courses (GMAT4440) and possibly GMAT4150 and GMAT4010 that follow in later stages of the Program.

This course will use Moodle.

HANDBOOK DESCRIPTION

See link to virtual handbook: www.handbook.unsw.edu.au/undergraduate/courses/2015/GMAT3420.html

OBJECTIVES

The aims of the course are to introduce the principles of land law and cadastral surveying. In particular to assist students to learn factors that lead to the redefinition of boundaries in NSW and to guide students on the educational requirements that meet the registration requirements of the Board of Surveying & Spatial Information (BOSSI) for registration as a Cadastral Surveyor in NSW.

List of programme attributes:

- The skills involved in scholarly enquiry
- An in-depth engagement with the relevant disciplinary knowledge in its inter-disciplinary context
- Capacity for analytical and critical thinking and for creative problem solving
- Ability to engage independent and reflective learning
- Information literacy
- Skills for collaborative and multi-disciplinary work
- A respect for ethical practice and social responsibility
- Skills for effective communication
- An appreciation of, and a responsiveness to change
- A respect for ethical practice and social responsibility

TEACHING STRATEGIES

Lectures will be combined with discussion classes based on problems that are encountered in practice and field/site visits. Students will be required to demonstrate their knowledge in a presentation to the class. A team of industry based experts teach this course with one UNSW academic.

Lists of reading material will be provided in week 1 together with handouts related to specific topics in some other weeks. Students should read the relevant material prior to the lecture and should then be in a position to ask questions to clarify and ensure their understanding of each topic.

Recommended approaches to learning are:

Private Study	<ul style="list-style-type: none"> • Review lecture material • Do set problems and assignments • Join Moodle discussions of problems • Reflect on class problems and assignments • Download materials from Moodle • Keep up with notices and find out marks via Moodle
Lectures	<ul style="list-style-type: none"> • Find out what you must learn • See methods that are not in the reference books • Follow worked examples • Hear announcements on course changes
Discussion classes	<ul style="list-style-type: none"> • Be guided by staff • Practice solving set problems • Ask questions
Assessments	<ul style="list-style-type: none"> • Demonstrate your knowledge and skills • Demonstrate higher understanding and problem solving
Laboratory and Field Work	<ul style="list-style-type: none"> • Hands-on work, to set studies in context

EXPECTED LEARNING OUTCOMES

By the end of this session students should be able to understand the legal and practical principles that assist in the shaping of the cadastre, original definition and relocation of various land title boundaries in NSW. Students should also understand the impact of such decisions on society. Students should develop an understanding of professional and ethical responsibilities, and demonstrate a commitment to uphold them. The ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member, is also an outcome of this course.

For each hour of contact it is expected that you will put in at least 1.5 hours of private study.

ASSESSMENT

This course requires students to attend at least 80% of scheduled classes. The final grade for this course will normally be based on the sum of the scores from each of the assessment tasks. The Final Examination is worth 25% of the Final Mark. This test (in the exam period) will cover the sessions work. The formal exam scripts will not be returned. Students who perform poorly in the mid-session tests are recommended to discuss progress with the lecturer during the semester. Note: The lecturer reserves the right to adjust the final scores by scaling if agreed by the Head of School.

Details of each assessment component, the marks assigned to it, the criteria by which marks will be assigned, and the dates of submission are set out below.

ASSIGNMENTS

Assuming that you have met the 80% attendance rule, the overall assessment will be

- | | | |
|--------------------------------------|-----|---|
| 1. Presentation – Presenter | 10% | Dates assigned separately |
| 2. Class involvement in presentation | 5% | Each week |
| 3. Identification Survey | 20% | Due: 16 April at start of lecture |
| 4. Mid-session Test 1 | 15% | 23 April |
| 5. Strata Plan | 10% | Due: 14 May at start of lecture |
| 6. Mid-session Test 2 | 15% | 28 May |
| 7. Final test | 25% | In the formal exam period |

Practical Assignments:

Identification Survey

Working in groups, students will be required to complete a field survey of a selected urban property that is to be approved by the lecturer-in-charge. This assignment will be completed outside of the time allocated for classes and

students must obtain their own title and plan searches. The quality of these searches will be assessed and graded as part of the Practical Reports listed above.

Strata Plan

In addition to the above and again working in groups, students will be required to prepare a Strata Plan to standards required by NSW Legislation.

Access is available to a limited range of the School's surveying instruments and equipment for these exercises and again is subject to the approval of the lecturer-in-charge of the course. Further information about the practicals will be distributed during the lectures. Rules for practicals are given in a section below.

Late work will not be marked.

COURSE PROGRAM SEMESTER 1, 2015

Some topics may change dates depending on lecturer availability.

Week	Date	Topic (and lecturer)	Assessments Due
1	5 Mar	Introduction, Cadastral Surveying and the Legal System of NSW. Preparation of manual & electronic field notes for Cadastral Surveys. Reading a Plan of Survey PM	
2	12 Mar	Boundary re-location & Identification Surveys. Identification Reports and Calculations PM	
3	19 Mar	Torrens and Old System (OS) Land Titles in NSW. Estates in land. Investigating Titles & organising Search CM	
4	26 Mar	Boundaries - General and Fixed, Urban and Rural boundaries. Calculations from field surveys CM	
5	2 Apr	Interests in land including Easements & Restrictions. Preparation of draft documents - Sec 88b, Covenants and OS descriptions. CM	
Mid-semester Break			
6	16 Apr	Application of boundary location in field BH	Identification Report submission due
7	23 Apr	Coordinated cadastre and adjustments of multi-lot plans and Deposited Plan. BH	Test on material in weeks 1 to 6
8	30 Apr	Strata and Community Titles. Preparation and calculation of Strata Plan. AA	
9	7 May	Leases of Land, PCA Surveys. CM	
10	14 May	Natural Boundaries and related survey practice. PM	Strata Plan assessment due
11	21 May	Cadastral Problems. Practical analysis of Cadastral Problems. City Cadastral Surveys PM	
12	28 May	Revision. Road & Railways. Calculation of impact of road repositioning on Boundaries. PM	Test on material in weeks 7 to 11
13	4 June	Revision BRH	

RELEVANT RESOURCES

- Lists of reading material will be provided in week 1 together with handouts related to specific topics in some other weeks. Students should read the relevant material prior to the lecture and should then be in a position to ask questions to clarify and ensure their understanding of each topic.
- Additional materials provided on Moodle.

RULES FOR PRACTICAL / FIELD CLASSES

Do not assume a class will be cancelled because of poor weather conditions attend on time and ask the supervisor. Practical classes take place in a variety of weather. Do not forget umbrellas, water proof jackets, hats, sun cream, sturdy footwear (thongs or sandals are not acceptable), warm clothes, etc. There will be a briefing session prior to each practical class. Punctual attendance at the briefing is essential. All group members are expected to attend the briefings.

The practical exercises form an important part of learning in this course. Most practicals will be done in groups of students; however the calculations and reports require individual work. It is important that each student within a group

gets experience in each aspect of each practical. Students should be aware of OHS matters to be adopted when completing any field work. If you have any questions or doubts about an OHS matter discuss it with your supervisor.

ISSUING OF EQUIPMENT

As the issue of equipment is not at any set time, students should ensure that the store is scheduled to be open when seeking equipment. Only specific pieces of equipment will be available for tasks to be completed off campus. If the equipment is borrowed for use by more than one student, the group is responsible for all equipment issued to it, with the student signing for the equipment as the representative.

1. *You should first inspect all equipment and make sure that it is in working order otherwise you will be held responsible.* When returning equipment at the end of the field class, it should be handed back to the Stores Officer, piece by piece, so that it can be checked off. A student's responsibility for borrowed equipment does not end until all your equipment has been returned and signed off.
2. ***It is not sufficient to leave the equipment near the store and depart.***
3. ***Any equipment lost or damaged will have to be paid for by the group.*** In the field, there is less danger of losing items if everything is kept together and close to the group and where pedestrians can safely bypass it.

INSTRUMENTS

The equipment used in surveying is sometimes delicate and often valuable (> \$10,000). Please make sure that you take due care of the equipment and give some thought to the way in which you handle it. Theodolites and electronic measuring equipment have fragile optical, mechanical and electronic components and are delicately adjusted. ***Shut instrument boxes immediately after removing/replacing the instrument.*** Carrying instrument on tripods will not be tolerated in this School. Do not force any parts to move, ensure clamps that lock the instrument to the tripod are set and do not over tighten clamps. No equipment is to be left unattended in the field at any time.

IN THE PUBLIC EYE

It is hoped that students taking part in surveying practicals on or off the campus will create a favourable impression on the public and fellow students – and **so behave in a professional manner.** The field classes give you an opportunity to experience practical problems in a learning environment and should be a welcome break from lectures. It is hoped you find them enjoyable as well as instructive.

SUBMISSION OF REPORTS ON PRACTICAL WORK

Time: Reports may be submitted at any time prior to the due date. **Late submissions will not be marked,** unless accompanied by an appropriate reason. Reports should be submitted to the lecturer unless otherwise advised by the lecturer.

Contents of Reports: Your report should have a front/title page, a summary of results page and then the rest of the report including computations and plans. Reports must contain original field notes or a photocopy of the originals, but not rewritten field notes. The requirements for each practical will be discussed at the briefings before the practicals, if in doubt ask the supervisor. The front cover of all submissions should include: Course number and name, your name and the title of exercise

Field Notes: On the first page of your field notes for a particular exercise the following information should be given: Title of Exercise, Date, your name and others present in the group, instrument make and number if the School's equipment is used.

Field notes should be neatly written, not overcrowded and pencils are recommended. Use diagrammatic and tabular form where required, drawing neat sketches or diagrams where applicable. Overwriting is not permissible in the field notes and wrong figures or words should be crossed and the true one written above it and initialled by the booker whose name must appear at the top of each page.

Computations: Computations must be done by each individual.

DATES TO NOTE

Refer to MyUNSW for Important Dates available at: <https://my.unsw.edu.au/student/resources/KeyDates.html>

PLAGIARISM

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.

Plagiarism is the use of another person's work or ideas as if they were your own. When it is necessary or desirable to use other people's material you should adequately acknowledge whose words or ideas they are and where you found them (giving the complete reference details, including page number(s)). The Learning Centre provides further information on what constitutes Plagiarism at: <https://student.unsw.edu.au/plagiarism>

ACADEMIC ADVICE

For information about:

- Notes on assessments and plagiarism,

- School policy on Supplementary exams,
- Special Considerations,
- Solutions to Problems,
- Year Managers and Grievance Officer of Teaching and Learning Committee, and
- CEVSOC and SURVSOC

Refer to Academic Advice on the School website available at:

<http://www.engineering.unsw.edu.au/civil-engineering/resources/academic-advice>