



The University of Southern Queensland

## Course specification

The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.  
Please consult the web for updates that may occur during the year.

### Description: Surveying A

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
SVY	1102	74622	1, 2008	EXT	1.00	Toowoomba

<b>Academic group:</b>	FOENS
<b>Academic org:</b>	FOES05
<b>Student contribution band:</b>	2
<b>ASCED code:</b>	031101

### STAFFING

Examiner: Shane Simmons  
Moderator: Kevin McDougall

### SYNOPSIS

Surveying is the science of measuring and mapping features on the Earth's surface. Mapping of features is an important step for the transformation of ideas into reality for project's that require the development of land and infrastructure. The services of the surveyor may be required at many stages for a construction project or the development of land. This course introduces the student to surveying equipment, services, theory, measurement techniques and survey calculation's at an introductory level.

### OBJECTIVES

The course objectives define the student learning outcomes for a course. The assessment item(s) that may be used to assess student achievement of an objective are shown in parenthesis. On completion of this course, students should be able to:

1. express a broad understanding of surveying theory and its application (may be examined in any assessment item);
2. describe a range of surveying field practices (may be examined in any assessment item);
3. demonstrate and apply angular measurement methods (may be examined in any assessment item);
4. demonstrate and apply distance measurement methods (may be examined in any assessment item);
5. demonstrate and apply survey adjustment techniques to data from a survey traverse (may be examined in any assessment item);
6. solve plane coordinate problems (may be examined in any assessment item);
7. solve area and volumetric problems (may be examined in any assessment item); and
8. use an automatic level to undertake a level traverse and correctly reduce the data (may be examined in any assessment item).

## TOPICS

	Description	Weighting (%)
1.	Basic Principles of Surveying Theory	12.00
2.	Trigonometric Functions	12.00
3.	Plane Coordinate Calculations	12.00
4.	Levelling	12.00
5.	Distance Measurement	12.00
6.	Angular Measurement	12.00
7.	Traversing and traverse computations/adjustments	12.00
8.	Area & Volumetric Calculations	12.00
9.	Minor Equipment	4.00

## TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

Scientific calculator

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Bannister, A, Raymond, S & Baker, R 1998, *Surveying*, 7th edn, Pearson Education, Harlow, England.

McCormac, JC 2004, *Surveying*, 5th edn, Prentice Hall, New Jersey.

Uren, J & Price, WF 2006, *Surveying for engineers*, 4th edn, MacMillan, Basingstoke, England.

Wolf, PR & Ghilani, CD 2006, *Elementary surveying: an introduction to geomatics*, 11th edn, Prentice Hall, New Jersey.

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	52.00
Examinations	2.00
Private Study	81.00
Report Writing	20.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
ASSIGNMENT 1	100.00	10.00	28 Apr 2008
ASSIGNMENT 2	100.00	10.00	02 Jun 2008
2 HOUR RESTRICTED EXAMINATION	800.00	80.00	END S1 (see note 1)

### NOTES

1. Student Administration will advise students of the dates of their examinations during the semester.

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
There are no attendance requirements for this course. However, it is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.
- 2 Requirements for students to complete each assessment item satisfactorily:  
To satisfactorily complete an assessment item a student must achieve at least 50% of the marks or a grade of at least C-. Students do not have to satisfactorily complete each assessment item to be awarded a passing grade in this course. Refer to Statement 4 below for the requirements to receive a passing grade in this course.
- 3 Penalties for late submission of required work:  
If students submit assignments after the due date without extenuating circumstances then a penalty of 5% of the assigned mark may apply for each working day late up to a maximum of ten working days at which time a mark of zero can be recorded for that assignment.
- 4 Requirements for student to be awarded a passing grade in the course:  
To be assured of receiving a passing grade in a course a student must obtain at least 50% of the total weighted marks for the course.
- 5 Method used to combine assessment results to attain final grade:  
The final grades for students will be assigned on the basis of the weighted aggregate of the marks (or grades) obtained for each of the summative assessment items in the course.
- 6 Examination information:  
In a Restricted Examination, candidates are allowed access to specific materials during the examination. The only materials that candidates may use in the restricted examination for this course are: writing materials (non-electronic and free from material which could give the student an unfair advantage in the examination); handheld battery powered programmable calculators (students must indicate on their examination paper the make and model of any calculator(s) they use during the examination).
- 7 Examination period when Deferred/Supplementary examinations will be held:  
Any Deferred or Supplementary examinations for this course will be held during the examination period at the end of the semester of the next offering of this course.
- 8 University Regulations:  
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene

University Regulations. These regulations can be found at the URL <http://www.usq.edu.au/corporateservices/calendar/part5.htm> or in the current USQ Handbook.

## **ASSESSMENT NOTES**

- 1 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.
- 2 Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner.
- 3 In accordance with University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.
- 4 The Faculty will normally only accept assessments that have been written, typed or printed on paper-based media.
- 5 The Faculty will NOT accept submission of assignments by facsimile.
- 6 Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements.
- 7 In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.
- 8 Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded one of the temporary grades: IM (Incomplete - Make up), IS (Incomplete - Supplementary Examination) or ISM (Incomplete -Supplementary Examination and Make up). A temporary grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non directed personal study.
- 9 Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete - Deferred Examination; IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).