The University of Southern Queensland

Course Specification

Description: Surveying A

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-Nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
</tr>
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<tbody>
<tr>
<td>SVY</td>
<td>1102</td>
<td>21100</td>
<td>1, 2003</td>
<td>EXT</td>
<td>1.00</td>
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Academic Group: FOENS
Academic Org: FOES05
HECS Band: 2
ASCED Code: 031101

STAFFING
Examiner: Shane Simmons
Moderator: Kevin McDougall

SYNOPSIS
Surveying is the science of measuring and mapping features on the earth's surface. The spatial location of features is an important step for the transformation of ideas into reality for projects that require a geographic perspective. The services of Surveyors are required at all stages for new projects and developments, existing developments, either in a project management or consultancy role or in contractual employment. This course introduces students to surveying equipment, services, theory, measurement techniques and calculations.

OBJECTIVES
On completion of this course, students should be able to:
- demonstrate a broad understanding of surveying theory and its application;
- demonstrate and apply practical surveying tasks;
- explain the basic principles of surveying;
- explain the concepts of angular measurement;
- explain the concepts of distance measurement;
- explain the concepts of traversing;
- explain the concepts of levelling;
- solve plane coordinate and level traverse calculations and reductions;
- solve area and volumetric calculations;
- explain the concepts of misclosure and adjustment.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Basic Principles of Surveying</td>
<td>8.00</td>
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</table>
2. Trigonometric Functions 12.00
3. Minor Equipment 3.00
4. Linear Measurement 10.00
5. Angular Measurement 12.00
6. Traversing 15.00
7. Traverse Computations/Adjustments and Plane Coordinate Computations 15.00
8. Levelling 15.00
9. Areal & Volumetric Calculations 10.00

TEXT and MATERIALS required to be PURCHASED or ACCESSED:
Books can be ordered by fax or telephone. For costs and further details use the 'Book Search' facility at http://bookshop.usq.edu.au by entering the author or title of the text.

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.


STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Directed Study</td>
<td>52</td>
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<tr>
<td>Examinations</td>
<td>3</td>
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<td>Private Study</td>
<td>60</td>
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<td>Report Writing</td>
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ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>10.00</td>
<td>Y</td>
<td>07 Apr 2003</td>
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<tr>
<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>10.00</td>
<td>Y</td>
<td>26 May 2003</td>
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<td>3 HOUR RESTRICTED EXAMINATION</td>
<td>800.00</td>
<td>80.00</td>
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<td>END S1</td>
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NOTES:
- 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 complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available (or at least a grade of C-) for each assessment item.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 20% of the total marks available for the assignment will apply for each working day late.

4. Requirements for student to be awarded a passing grade in the course:
   (i) To be assured of receiving a passing grade a student must submit all of the summative assessment items, achieve at least 45% in the examination and at least 50% of the available weighted marks for the summative assessment items. (ii) Students who do not qualify for a Passing grade may, at the discretion of the Examiner, be assigned additional work to demonstrate to the Examiner that they have achieved the required standard. It is expected that such students will have gained at least 45% of the total marks available for all summative assessment items.

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/SECARIAT/calendar/Part5/ or in the printed version of 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 the temporary grade: IM (Incomplete - Make up).
An IM 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).
10 The Faculty of Engineering and Surveying does not offer supplementary examinations.