



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: Soil and Water Engineering Practice 1

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
ENV	2901	90278	2, 2009	EXT	0.00	Toowoomba

<b>Academic group:</b>	FOENS
<b>Academic org:</b>	FOES03
<b>Student contribution band:</b>	2
<b>ASCED code:</b>	030900

### STAFFING

Examiner: Malcolm Gillies  
Moderator: Joseph Foley

### REQUISITES

Pre-requisite: ENV2103 or ENV1101

### OTHER REQUISITES

Recommended prior or concurrent study: CIV2401

### RATIONALE

Practice courses seek to develop basic competencies and attributes commensurate with the intuitive and professional skills sought in engineering graduates. This course provides a broad introduction to the practical aspects of soil and water engineering and focuses on the development of analytical, manual, diagnostic, communication and group interaction skills.

### SYNOPSIS

The course is subdivided into practice modules covering aspects of Soil Mechanics and Hydraulics. Practice requirements for each module include testing and experimental work in a team environment, and subsequent data analyses and presentation of results on an individual basis. Students will be required to carry out soil tests to Australian standards to gauge various engineering properties of soils. Laboratory sessions in hydraulics provide for better understanding of relevant theory and calibration techniques for flow measuring devices through hands on experience.

### 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. measure basic engineering properties of soils using standard testing procedures; (Soil Mechanics Worksheets)

2. conduct experiments to verify common fundamental principles relating to fluid statics and fluid flow in pipelines and channels; (Hydraulics Worksheets)
3. analyse and present experimental data to a suitable engineering standard; (Soil Mechanics & Hydraulics Worksheets)

## TOPICS

Description	Weighting (%)
1. Laboratory Work and Data Analysis - Soil Mechanics	50.00
2. Laboratory Work and Data Analysis - Hydraulics	50.00

## 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).

## 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

ACTIVITY	HOURS
Laboratory or Practical Classes	28.00
Report Writing	22.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
SOIL MECHANICS WORKSHEETS	1.00	50.00	23 Oct 2009
HYDRAULICS WORKSHEETS	1.00	50.00	23 Oct 2009

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
This course requires attendance at residential school. Students must attend and participate appropriately in all laboratory activities scheduled for them. It is the student's responsibility to study all material provided to them or required to be accessed by them to maximize 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 the soil mechanics component of this course, students must attend all of the laboratory activities, complete all of the worksheets, submit these worksheets by the due date and achieve at least 80% of the marks available for the soil mechanics worksheets. To satisfactorily complete the hydraulics component of this course, students must attend all of the laboratory activities, complete all of the worksheets, submit these worksheets by the due date and achieve at least 90% of the marks available for the hydraulics worksheets.
- 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 students must complete both of the assessment items satisfactorily as stated in 2 above.
- 5 Method used to combine assessment results to attain final grade:  
As P is the only passing grade available for this course, all students who have qualified for a passing grade, under the requirements in 4 above, will be given a grade of P. Other students will be given either a Fail grade or an incomplete grade.
- 6 Examination information:  
There is no examination in this course.
- 7 Examination period when Deferred/Supplementary examinations will be held:  
Not applicable.
- 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 despatched to USQ within 24 hours 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).