



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: Transport Engineering

Subject	Cat-nbr	Term	Mode	Units	Campus
CIV	3703	2, 2010	EXT	1	Toowoomba

<b>Academic group:</b>	FOENS
<b>Academic org:</b>	FOES03
<b>Student contribution band:</b>	2
<b>ASCED code:</b>	030909

### STAFFING

Examiner: Ron Ayers  
Moderator: Trevor Drysdale

### SYNOPSIS

The planning, construction and operation of civil engineering works is critical to the well being of societies within the modern world. It is important, therefore, that the graduate civil engineer have a broad understanding the role and planning of transport systems. As the majority of civil engineers working in the transport sector are concerned with road transport, a greater emphasis will be placed on this mode of transport. Students of this course will be assumed to have a basic understanding of statistical techniques, soil mechanics, engineering materials and technical drafting skills (including CAD).

### OBJECTIVES

The course objectives define the student learning outcomes for a course. On completion of this course, students should be able to:

1. outline the role of transportation systems within modern societies and the relationship between transport and land use, and appraise the potential of new transport technologies;
2. describe current transportation planning practice (with particular emphasis on road network planning) and carry out simple planning and modelling studies;
3. recommend on testing procedures for road pavement material selection, and design road pavements and road surfacings;
4. carry out the geometric design of a road (including the geometric design of intersections of the road with other roads);
5. select and justify the procedures to be used in a particular road construction or road maintenance situation;
6. list and discuss the factors influencing road traffic operation, and analyse the level of service of a road section;
7. organise and execute simple traffic studies;
8. design parking facilities for road vehicles;
9. design traffic control facilities for road vehicles;

10. describe the basic characteristics of railway engineering, and air and water transportation systems;
11. carry out simple economic analyses of transport network improvement proposals;
12. describe the environmental and energy issues in modern transport;
13. demonstrate familiarity with the use of computer software to assist in the solution of transport engineering problems;
14. prepare, to a professional standard, technical reports in English having good structure and format, high standards of spelling, grammar and punctuation, and appropriate and adequate technical content.

## TOPICS

	Description	Weighting (%)
1.	Transport and Society	2.00
2.	Transport Planning	17.00
3.	Road Pavement Materials	10.00
4.	Road Pavement Design	12.00
5.	Road and Intersection Design	16.00
6.	Road Construction and Maintenance	4.00
7.	Traffic Operation and Studies	10.00
8.	Provision for Stationary Vehicles	4.00
9.	Traffic Control and Management	7.00
10.	Railway Engineering	6.00
11.	Air and Water Transport	4.00
12.	Transport Economics	2.00
13.	Environmental and Energy Issues in Transport	4.00
14.	The Future of Transport	2.00

## 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).

(DVD, Road Design, USQ. (This DVD is available for purchase from the USQ Bookshop or it can be borrowed from the USQ Library).)

## 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.

(References included in Study Package)

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Assessments	30.00
Directed Study	123.00
Examinations	2.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date	Objectives assessed	Graduate skill	Level assessed
ASSIGNMENT	200	20	30 Aug 2010	2, 3, 4, 13, 14		
ONLINE DISCUSSION & REPORT	200	20	11 Oct 2010	1, 2, 3, 5, 6, 10, 14		
2 HOUR CLOSED EXAM	600	60	END S2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12		

## 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. Participation in on-line discussion groups. Students are to participate in on-line discussion groups beginning in Week 1. Each student must submit at least five entries and a final report.
- 2 Requirements for students to complete each assessment item satisfactorily:  
To satisfactorily complete an individual assessment item a student must achieve at least 50% of the marks or a grade of at least C-. (Depending upon the requirements in Statement 4 below, students may not have to satisfactorily complete each assessment item 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:  
The examination in this course is a closed examination. In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into 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 Student Policies:  
Students should read the USQ policies Definitions, Assessment and Student Academic Misconduct to avoid actions which might contravene University policies and practices. These policies can be found at the URL  
[http://policy.usq.edu.au/portal/custom/search/category/usq\\_document\\_policy\\_type/Student.1.html](http://policy.usq.edu.au/portal/custom/search/category/usq_document_policy_type/Student.1.html).

## 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 usual method of assessment submission for the Faculty is by written, typed or printed paper-based media (i) submitted to the Faculty Office for students enrolled in the course in the on-campus mode, or (ii) mailed to the USQ for students enrolled in the course in the external mode. The due date for the assessment is the date by which a student must (i) submit the assessment for students enrolled in the on-campus mode, or (ii) mail the assessment for students enrolled in the external mode.
- 5 The Faculty will NOT normally accept submission of assessments by facsimile or email
- 6 If electronic submission of assessments is specified for the course, students will be notified of this in the course Introductory Book and on the USQ Study Desk. All required electronic submission must be made through the Assignment Drop Box located on the USQ Study Desk for the course, unless directed otherwise by the examiner of the course. The due date for an electronically submitted assessment is the date by which a student must electronically submit the assignment.
- 7 Students who do not have regular access to postal services for the submission of paper-based assessments, or regular access to Internet services for electronic submission, or are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements prior to the submission date.
- 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).
  - 10 Harvard (AGPS) is the referencing system required in this course. Students should use Harvard (AGPS) style in their assignments to format details of the information sources they have cited in their work. The Harvard (AGPS) style to be used is defined by the USQ Library's referencing guide. <http://www.usq.edu.au/library/help/referencing/default.htm>

## **EVALUATION AND BENCHMARKING**

In meeting the University's aims to establish quality learning and teaching for all programs, this course monitors and ensures quality assurance and improvements in at least two ways. This course:

1. Conforms to the USQ Policy on Evaluation of Teaching, Courses and Programs to ensure ongoing monitoring and systematic improvement.
2. Forms part of the Bachelor of Engineering and/or Bachelor of Engineering Technology program and is benchmarked against the: - USQ accreditation/reaccreditation processes which include (i) stringent standards in the independent accreditation of its academic programs, (ii) close integration between business and academic planning, and (iii) regular and rigorous review; and - professional accreditation standards of Engineers Australia.