ENTC12004 *Civil Construction*

Term 1 - 2024

Profile information current as at 19/05/2024 10:43 am

All details in this unit profile for ENTC12004 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

Students are introduced to the roles of civil construction team members, use of typical project documents, application of Standards, acts and regulations, and construction processes to civil earthworks, temporary works, substructure works and superstructure works for routine construction projects. Students conduct research, prepare reports and presentations and work independently and in teams in a professional manner. Distance education (FLEX) students are required to have access to a computer and to make frequent use of the Internet.

Details

Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Cond: Flex mode is not available to students in Co-op Course CF47
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2024

- Online

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Written Assessment**
Weighting: 25%
2. **Online Quiz(zes)**
Weighting: 30%
3. **Written Assessment**
Weighting: 45%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Unit Evaluation

Feedback

The Moodle page may need some organisation with the new tile format.

Recommendation

Review the arrangement of study materials to assist the student in learning the topics.

Feedback from Unit Evaluation

Feedback

Good use of real-world examples. The lecture is very helpful and well knowledged.

Recommendation

The good practice will be continued in future offers.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Explain the roles of civil construction team members
2. Apply contract documents, standards, codes of practice, acts, and regulations to routine construction work
3. Plan civil engineering construction processes for routine civil construction tasks
4. Apply information literacy skills to research and prepare professional records and reports
5. Work and learn in a professional manner.

The Learning Outcomes for this unit are linked with the Engineers Australia Stage 1 Competency Standards for Engineering Associates in the areas of 1. Knowledge and Skill Base, 2. Engineering Application Ability and 3. Professional and Personal Attributes at the following levels:

Introductory

1.2 Procedural-level understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the practice area. (LO: 4N)

3.1 Ethical conduct and professional accountability. (LO: 1N)

Intermediate

1.3 In-depth practical knowledge and skills within specialist sub-disciplines of the practice area. (LO: 1N 2I 3I 4I)

1.4 Discernment of engineering developments within the practice area. (LO: 2I 3I 4N)

1.6 Understanding of the scope, principles, norms, accountabilities, and bounds of sustainable engineering practice in the area of practice. (LO: 2I 3N 4I)

2.1 Application of established technical and practical methods to the solution of well-defined engineering problems. (LO: 2N 3I 4I)

2.2 Application of technical and practical techniques, tools, and resources to well-defined engineering problems. (LO: 3I)

2.4 Application of systematic project management processes. (LO: 4I)

3.2 Effective oral and written communication in professional and lay domains. (LO: 1I 4I 5I)

3.5 Orderly management of self, and professional conduct. (LO: 3N 5I)

Advanced

3.4 Professional use and management of information. (LO: 2I 4A)

Note: LO refers to the Learning Outcome number(s) which link to the competency and the levels: N – Introductory, I – Intermediate, and A - Advanced.

Refer to the Engineering Undergraduate Course Moodle site for further information on the Engineers Australia's Stage 1 Competency Standard for Professional Engineers and course level mapping information
https://moodle.cqu.edu.au/course/view.php?id=1511

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ∘ Professional Level | ∘ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Written Assessment - 25%		•	•	•	•
2 - Online Quiz(zes) - 30%	•		•	•	
3 - Written Assessment - 45%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving		•	•	•	
3 - Critical Thinking		•	•	•	
4 - Information Literacy	•	•	•	•	
5 - Team Work					
6 - Information Technology Competence					
7 - Cross Cultural Competence		•	•		•
8 - Ethical practice	•				
9 - Social Innovation					
10 - Aboriginal and Torres Strait Islander Cultures					

Textbooks and Resources

Textbooks

ENTC12004

Prescribed

Construction Planning, Equipment, and Methods
9th Edition (2018)
Authors: Peurifoy, R.L., Schexnayder, C.J., Schmitt, R. and Shapira, A.
McGraw Hill Higher Education
London , UK
ISBN: 9781260108804
Binding: Hardcover

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Microsoft Word and Excel

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Kumaran Suntharavadivel Unit Coordinator
t.suntharavadivel@cqu.edu.au
Daniel Larsen Unit Coordinator
d.p.larsen@cqu.edu.au

Schedule

Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Standards and Code of practice		

Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Equipment in construction projects - Dozer, scraper		

Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Equipment in construction projects - Excavators		

Week 4 - 25 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic

Equipment in construction projects - Finishing and hauling		

Week 5 - 01 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Equipment in construction projects - Construction cranes, drag-lines		

Vacation Week - 08 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Mid-term Break		

Week 6 - 15 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Earth material stabilisation & Construction processes - Buildings		**Assignment** Due: Week 6 Monday (15 Apr 2024) 5:00 pm AEST

Week 7 - 22 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Construction processes - Forming systems		

Week 8 - 29 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Construction processes - Timber structures		

Week 9 - 06 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Construction processes - Concrete & Masonry structures		

Week 10 - 13 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Construction processes - Steel structures		**Online Test** Due: Week 10 Friday (17 May 2024) 5:00 pm AEST

Week 11 - 20 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Construction processes - Roads		

Week 12 - 27 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Construction processes - Railway		

Review/Exam Week - 03 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic
Program review		**Case Study** Due: Review/Exam Week Monday (3 June 2024) 5:00 pm AEST

Exam Week - 10 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Assignment

Assessment Type
Written Assessment

Task Description
Weeks 1-5 content is covered in this assessment item. Students will be asked to answer questions related to standards and equipment used in construction projects. Expected answers should be in the form of definition, briefing and explanation including simple problems. Assignment questions and details will be available on the unit Moodle site during Week 1 of the term.

Assessment Due Date
Week 6 Monday (15 Apr 2024) 5:00 pm AEST

Return Date to Students
Week 8 Tuesday (30 Apr 2024)

Weighting
25%

Minimum mark or grade
40%

Assessment Criteria
Content—includes the accuracy and relevance of information, application of knowledge, language and grammar used in answering questions, and proper referencing of sources of information, images, data and tables used in the assessment submission. When referencing, use the Harvard Referencing Style.
Presentation and layout—includes the selection of typeface, written and general appearance, detail and quality of the assessment item submission
Note: If the information is taken only from the prescribed text and the given resource material then obtaining a higher grade of marks may not be possible.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
It is not expected that students to type up calculations. Students should scan the hand written calculations for online submission.

Learning Outcomes Assessed

- Apply contract documents, standards, codes of practice, acts, and regulations to routine construction work
- Plan civil engineering construction processes for routine civil construction tasks
- Apply information literacy skills to research and prepare professional records and reports
- Work and learn in a professional manner.

2 Online Test

Assessment Type
Online Quiz(zes)

Task Description
This assessment has questions from the content covered in Weeks 6-10. Students will be asked to answer questions related to earth material stabilization, forming systems and various construction processes. Expected answers should be in the form of definition, brief and detailed answers including simple problems. This assessment task is in the form of an online test. Details including model questions will be available on the unit Moodle site on or before Week 7 of the term. Late submission is not allowed.

Number of Quizzes
1

Frequency of Quizzes
Other

Assessment Due Date
Week 10 Friday (17 May 2024) 5:00 pm AEST
Must be completed as per the due date and time. Late submission is not allowed

Return Date to Students
Week 12 Monday (27 May 2024)
Marks will be available via Moodle

Weighting
30%

Minimum mark or grade
40%

Assessment Criteria
Content — includes the accuracy and relevance of information, application of knowledge, language and grammar used in answering questions, equations, data and tables used in answering questions.

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Explain the roles of civil construction team members
- Plan civil engineering construction processes for routine civil construction tasks
- Apply information literacy skills to research and prepare professional records and reports

3 Case Study

Assessment Type
Written Assessment

Task Description
This is an essay format assessment item. Students are expected to use their knowledge gained from various topics including standards, equipment used in construction projects and the process involved in the construction of load-bearing structures. It is a must for students to use case study for this submission. Case study stands for the observation and analysis of an ongoing construction (option 1) or recently finished construction (option 2). Examples from literature can be used only as reference material to support the case study information of this assessment item.
All details about this assessment item including format, site inspection related forms links will be provided on the unit Moodle site during Week 1 of the term. It is recommended for students to plan and work towards the case study essay assessment item as early as possible.

Assessment Due Date
Review/Exam Week Monday (3 June 2024) 5:00 pm AEST

Return Date to Students

18 June 2024

Weighting
45%

Minimum mark or grade
40%

Assessment Criteria
Content—includes the accuracy and relevance of information, application of knowledge, language and grammar used in answering questions, and proper referencing of sources of information, equations, images, data and tables used in the assessment submission. When referencing, use of the Harvard Referencing Style.
Presentation and layout—includes the selection of typeface, written and general appearance, detail and quality of the assessment item submission.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit as single PDF file (no multiple files are allowed)

Learning Outcomes Assessed

- Explain the roles of civil construction team members
- Apply contract documents, standards, codes of practice, acts, and regulations to routine construction work
- Plan civil engineering construction processes for routine civil construction tasks

- Apply information literacy skills to research and prepare professional records and reports
- Work and learn in a professional manner.

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem