EDSE13002 *Industrial Skills*
Term 1 - 2018

Profile information current as at 17/05/2024 11:48 pm

All details in this unit profile for EDSE13002 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
This unit investigates the nature and functions of available resources, through the application of inquiry, design and problem-solving methodologies for a range of industrial skills. It requires the student to identify and understand a problem or need, select appropriate resources and strategies that may solve the problem, then implement a plan and evaluate the outcome. While participating, students are exposed to a range of intellectual challenges which develop practical skills associated with welding and thermal cutting, safety equipment and safety to current Australian Standards. Welding and Thermal Cutting form the basis of the range of Industrial skills developed over the duration of the unit and involves the design of engineered artefacts, where safety is paramount. Through practical workshops and associated theory, students will apply the knowledge and skills of industrial skills necessary to teach Industrial Technology and Design in the senior years of schooling.

Details
Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *7*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
There are no requisites for this unit.
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 - 2018

- Distance

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).

Residential Schools
This unit has a Compulsory Residential School for distance mode students and the details are:
Click here to see your Residential School Timetable.

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. **Practical Assessment**
Weighting: 50%
2. **Portfolio**
Weighting: 50%

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 Students

Feedback

Learning resources were too widely spread over large documents, which would be better condensed & more focused.

Recommendation

Review content and make changes to ensure it is focused on the purpose of the unit.

Unit Learning Outcomes

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

1. Plan and develop a series of design based activities for construction which develop practical skills associated with hand and power tools, machinery, safety and equipment.
2. Apply the use, development and impact of design concepts and problem solving through the construction of a series of design based activities.
3. Investigate how to plan, sequence, implement and assess design application processes used in the production of projects incorporated in the industrial technology and design teaching area.
4. Critically evaluate specific applications of tools and equipment used in the manufacture of products for welding and thermal cutting.
5. Apply appropriate workplace health and safety and maintenance practices when using hand and power tools.

This unit aligns with the following Australian Professional Standards for Teachers (Graduate Career Stage):
Standard 2: Know the content and how to teach it
2.1 Content and teaching strategies of the teaching area
2.2 Content selection and organisation
Standard 4: Create and maintain supportive and safe learning environments
4.4 Maintain student safety
Standard 7: Engage professionally with colleagues, parents/carers and the community.
7.2 Comply with legislative, administrative and organisational requirements;

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 - Practical Assessment - 50%	•	•	•	•	•
2 - Portfolio - 50%	•	•	•	•	•

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					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Practical Assessment - 50%	•	•	•	•	•	•	•	•		
2 - Portfolio - 50%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

EDSE13002

Prescribed

Engineering: An Industry Study
Edition: 4th edn (2015)
Authors: Baker, S & Schlyder, D
PCS Publications
Toowoomba , Queensland , Australia
ISBN: 9780947225513
Binding: Paperback

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: American Psychological Association 6th Edition (APA 6th edition)
For further information, see the Assessment Tasks.

Teaching Contacts

Brad Connolly Unit Coordinator
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Schedule

Week 1 - 05 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Workplace Health & Safety Principles.	Engineering:An Industry Study pp.1-31, Apply Principles of OHS in the Work Environment	Quiz 2%

Week 2 - 12 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Oxywelding.	Read pp.70-83: Engineering-An Industry Study, Fundamentals of Gas Welding and Cutting PDF, Welding Glossary, The Principles of Welding and Oxy Document found in Resource Folder. View the power point presentations and watch the video clips. There is also a PDF on The Principles of Welding that you should read.	Quiz 2%

Week 3 - 19 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Manual Metal Arc Welding (MMAW).	Readings for this topic are pp.84-93 Engineering- An Industry Study, MMAW word doc, Principles of Welding PDF, Welding Glossary. View Power Point.	Quiz 2%

Week 4 - 26 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Gas Metal Arc Welding (GMAW)	Readings for this week are pp.96-110 Engineering- An Industry Study, Principles of Welding PDF, Power Point, Welding Glossary. Watch video clips.	Quiz 2%

Week 5 - 02 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Gas Tungsten Arc Welding. (GTAW)	Readings for this topic are Principles of Welding pp.51-55, Welding Glossary, Power Point. Watch video clips.	Quiz 2%

Vacation Week - 09 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Enjoy your break		

Week 6 - 16 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Oxy Cutting and Plasma Cutting	Readings for this week's topic can sourced from PDFs, Power Points and video clips.	Quiz 2%

Week 7 - 23 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Engineering Measurements	Readings for this week are P110 - P126 Engineering - An industry Study.	Quiz 2%

Week 8 - 30 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Weld joints & types.	Readings are from Engineering- An Industry Study Textbook pp.90-92 and PDFs found in this week's folder.	Quiz 2%

Week 9 - 07 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
Mechanical cutting and workshop machines.	Readings for this week are P127 – 190 Engineering-An Industry Study	Quiz 2%

Week 10 - 14 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
Power tools & Hand held operations.	Readings for this week are P191 – 208 Engineering-An Industry Study	Quiz 2%

Week 11 - 21 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
Review your readings from the last 10 weeks. Also continue working on your assignment which is due next week.		

Week 12 - 28 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
Assignment Due: 1/06/2018		Quizzes and Unit Plan Due Friday (01 Jun 18) 05:00 PM AEST **Quizzes and Unit Plan** Due: Week 12 Friday (1 June 2018) 5:00 pm AEST

Review/Exam Week - 04 Jun 2018

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 11 Jun 2018

Module/Topic	Chapter	Events and Submissions/Topic
Compulsory Residential School 2/07/18 - 4/07/18 if needed 5/07/18 - 7/07/18	During this week students will be assessed on their knowledge & understanding of processes and procedures as well as their skills. Students will be required to complete a number of school examples aligned to certain year levels. Students will be required to wear steel capped safety boots, long sleeve shirts and long pants.	

Assessment Tasks

1 Compulsory Residential School

Assessment Type
Practical Assessment

Task Description
Monday 2nd - Wednesday 4th July 2018 if needed Thursday 5th - Saturday 7th July
CQUniversity Rockhampton City Campus
Residential school introduces students to the welding and thermal cutting processes being taught in schools today. Students will be assessed on the quality and presentation of their welding and thermal cutting examples, in addition to their knowledge and understanding and application of welding & thermal cutting processes, and their ability to work independently with limited assistance.
Residential School gives students the opportunity to develop their hand skills, knowledge & understanding of welding & thermal cutting procedures and processes.

Assessment Due Date

Practical projects assessed over the duration of Residential School

Return Date to Students

Results Finalised at Residential School

Weighting
50%

Assessment Criteria
Students will be assessed over the duration of the Res School in relation to the following:

- Practical expertise
- Quality and presentation of projects
- knowledge and understanding and application of workshop processes ability to work independently with limited assistance

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
No submission method provided.

Learning Outcomes Assessed

- Plan and develop a series of design based activities for construction which develop practical skills associated with hand and power tools, machinery, safety and equipment.
- Apply the use, development and impact of design concepts and problem solving through the construction of a series of design based activities.
- Investigate how to plan, sequence, implement and assess design application processes used in the production of projects incorporated in the industrial technology and design teaching area.
- Critically evaluate specific applications of tools and equipment used in the manufacture of products for welding and thermal cutting.
- Apply appropriate workplace health and safety and maintenance practices when using hand and power tools.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

2 Quizzes and Unit Plan

Assessment Type
Portfolio

Task Description
Assessment Item 1 A
10 Multi-Choice Quizzes: 20% total marks.
Quizzes will be based on weekly readings from the assigned text book. Quizzes will be available on the Moodle website each Monday and remain open until the following Monday at midnight. Students will be allowed a maximum of 1 hour and two attempts to complete each quiz. The highest scoring attempt will be used for grading. Please note that results from all 10 quizzes contribute to the overall mark of 20%
Assessment Item 1B
Written Assignment: Unit Plan due: 1/06/18 30% total marks
Students are required to develop a Unit Plan and Project suitable for either a Year 11 or 12 Engineering class. The assignment will consist of a Unit Plan that has a: Rationale for the Project, what Year Level the Project is targeting, an accurate Dimensioned Working Drawing of the Project, a Detailed Work Procedure, Lesson Plans for the duration of the Project and a Criteria Sheet. An example of an assignment has been made available under the Resources Tab on the Moodle Website.

Assessment Due Date
Week 12 Friday (1 June 2018) 5:00 pm AEST
Written Assignment: Unit Plan

Return Date to Students

Assessment will be returned after moderation and grade certification

Weighting
50%

Assessment Criteria
Students are assessed on the following criteria:

- Ability to present graphical information
- Ability to express and develop an idea
- Ability to present work effectively

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Online

Learning Outcomes Assessed

- Plan and develop a series of design based activities for construction which develop practical skills associated with hand and power tools, machinery, safety and equipment.
- Apply the use, development and impact of design concepts and problem solving through the construction of a series of design based activities.
- Investigate how to plan, sequence, implement and assess design application processes used in the production of projects incorporated in the industrial technology and design teaching area.
- Critically evaluate specific applications of tools and equipment used in the manufacture of products for welding and thermal cutting.
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Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

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