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3, 2021  
C 4705  
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**COURSE DETAILS**

**Units of Credit**      6  
**Contact hours**      ~4 hours per week  
**Class**



## EXPECTED LEARNING OUTCOMES

This course is designed to address the learning outcomes below and the corresponding Engineers Australia Stage 1 Competency Standards for Professional Engineers as shown. The full list of Stage 1 Competency Standards may be found in Appendix A.

After successfully completing this course, you should be able to:

Learning Outcome	EA Stage 1 Competencies
1. Provide a definition of sustainability; list the principles of Ecologically Sustainable Development (ESD), and describe the context in which they have arisen and in which they are implemented.	<i>PE1.1, PE1.2; PE1.6</i>
2. Describe the typical structure and format of an EIS, EMS and Environmental Report.	<i>PE1.1, PE1.3, PE1.6</i>
3. Use provided data to conduct an analysis of simple facilities and systems using material flow analysis, environmental life cycle assessment, environmental input-output and footprint analysis.	<i>PE2.2, PE1.6</i>
4. Evaluate sources of information that can be used in assessing progress towards ecological sustainability and effectively communicate conclusions	<i>PE1.4, PE1.6, PE3.2</i>
5. Work together in interdisciplinary groups to evaluate the environmental sustainability of households, companies and/or projects.	<i>PE3.6, PE2.2, PE1.6</i>
6. Assess a problem to know which tool(s) are appropriate in quantitatively understanding it, and describe how information from the application of these tools can be used to improve ecological sustainability outcomes in	

<b>COURSE PROGRAM</b>			
<b>Term 3 2021</b>			
<b>Date</b> <b>Wednesdays</b>	<b>Topic</b>	<b>Lecture Content</b> <b>9 am – 11 am</b>	<b>Demonstration Content</b> <b>11 am – 1 pm</b>
15/09/2021 (Week 1)	ESD and sustainability concepts	Introduction to course; ESD and sustainability concepts	Sustainability Workshop
22/09/2021 (Week 2)	Ecological Footprints (EF)	Ecological Footprints (EF)	Introduction to EF Workshop
(Week 3)		(NMA) <u>Quiz on EF and ESD</u>	
(Week 4)	Carbon Footprint (CF)		
(Week 5)	(LCA)	<u>Quiz on CF and NMA</u>	
(Week 6)		courses (non- teaching)	
(Week 7)	(MFA)		
(Week 8)	Statement (EIS)	Statement (EIS)	

## **ASSESSMENT**

This course will be fully assessable by weekly quizzes and two assignments; there is no exam.

Assessment 1 consists of a series of quizzes which are online, open-book and cover the content of the previous weeks' lectures; they may be only multiple choice or a combination of multiple choice and short answer or calculation.

Assessment 2 is a group report where students will conduct an environmental sustainability assessment (using some of the tools learned in the course) to analyse and evaluate their own household's consumption and action changes to be applied to a case study. Students will prepare one group report to be submitted via Turnitin, where feedback will be provided.

For Assessment 3 students need to prepare an individual presentation on a topic relating to sustainability assessment tools learnt in class. Presentations will be 5 minutes long (and maximum 20 slides). Formative feedback will be provided by peers during class, final submission will be online. Further details can be found on the course Moodle page.

*Note: The lecturer reserves the right to adjust the final scores by scaling if agreed by the Head of School.*

## **PENALTIES**

*For Assessments 2 and 3, late work will be penalised at the rate of 10% (of the assessment full marks) per day after the due time and date have expired.*

**ASSESSMENT OVERVIEW**

<b>Item</b>	<b>Length</b>	<b>Weighting</b>	<b>Learning outcomes assessed</b>	<b>Assessment Criteria</b>	<b>Due date and submission requirements</b>	<b>Deadline for absolute fail</b>	<b>Marks returned</b>
1.Online Quizzes (Individual)	4x15 minute quizzes	40%	CLO1, CLO2	Online quizzes will test the students' ability to synthesise content of the course, demonstrate understanding of main principles and implement them in given situations. They may include calculations and short answer questions.	For weeks when quizzes are scheduled (see Course Program), the quiz opens at 1 pm on Wed and closes at 1 pm on Thu; any open attempts will be automatically submitted when the quiz closes.	When quiz closes	After all students have done the quiz (including special consideration cases). Typically, 3-4 days after the quiz is closed

## RELEVANT RESOURCES

There is no specific textbook set for this subject. Support resources for this course (e.g., class slides, recommended internet websites, scientific papers and other publications) are provided on Moodle.

## DATES TO NOTE

Refer to MyUNSW for Important Dates available at: <https://student.unsw.edu.au/dates>

## PLAGIARISM

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.

Plagiarism is the use of another person's work or ideas as if they were your own. When it is necessary or desirable to use other people's material you should adequately acknowledge whose words or ideas they are and where you found them (giving the complete reference details, including page number(s)). The Learning Centre provides further information on what constitutes Plagiarism at:

<https://student.unsw.edu.au/plagiarism>

## ACADEMIC ADVICE

For information about:

- x Notes on assessments and plagiarism;
- x Special Considerations: [student.unsw.edu.au/special-consideration](https://student.unsw.edu.au/special-consideration);
- x General and Program-specific questions: [The Nucleus: Student Hub](#)
- x

