# IEST7500

Environmental Technologies: Challenges & Opportunities

Term Two  //  2021

# Course Overview

## Staff Contact Details

### Convenors

| Name | Email | Availability | Location | Phone |
|------|-------|--------------|----------|-------|
| Colin Salter | c.salter@unsw.edu.au | | | |

## School Contact Information

School of Humanities and Languages

Location: School Office, Morven Brown Building, Level 2, 258

Opening Hours: Monday - Friday, 9am - 5pm

Phone: +61 2 9385 1681

Fax: +61 2 9385 8705

Email: hal@unsw.edu.au

# Course Details

## Credit Points 6

## Summary of the Course

This course is centred on the fundamentals of environmental technologies and their practicalities, implications, opportunities, and challenges for environmental professionals and leaders. Building on understandings of the mechanisms through which society shapes technology (and technology shapes society), this course introduces real-world case studies of the application of technical fixes designed to reduce humanity's ecological impact. In exploring the diverse relationships and socio-economic contexts across cities, rural, and regional areas in the Global North and South in which environmental technologies are deployed, you will develop an advanced understanding of tensions between various forms of technical knowledges and their application within and across societies and cultures.

## Course Learning Outcomes

1. Investigate the interaction between technology and society, and its influence on the role of environmental professionals and leaders
2. Demonstrate an understanding of the importance of socio-economic contexts for the development and delivery of environmental technical fixes
3. Assess common approaches to environmental technologies and design, and how these address real-world and complex challenges
4. Discuss the importance of cultural context on technical knowledges and their application
5. Communicate the opportunities and challenges of environmental technologies to a range of stakeholders in both academic and practical settings

## Teaching Strategies

This course utilises a diversity of activities, including face-to-face classes, online activities, guest lectures, and field study to support and develop your learning. Interactive seminars include lectures and guest lectures, small group activities, presentations, and broader directed discussion.

# Assessment

## Assessment Tasks

| Assessment task | Weight | Due Date | Student Learning Outcomes Assessed |
|---|---|---|---|
| Forum discussion | 10% | Not Applicable | 1, 5 |
| Group project presentation | 30% | Not Applicable | 1, 2, 3, 4 |
| Research Report | 30% | 13/08/2020 11:59 PM | 2, 3, 5 |
| Review of Readings | 30% | Not Applicable | 1, 2, 3 |

## Assessment Details

**Assessment 1: Forum discussion**

**Start date:** Not Applicable

**Length:** 500

**Details:**

1 or 2 class exercises (max 500 words) and participation (on-campus) OR online discussion posts (distance students) of max 500 words per week for prescribed weeks. Individual feedback provided.

**Additional details:**

See Moodle for further details.

**Turnitin setting:** This is not a Turnitin assignment

**Assessment 2: Group project presentation**

**Start date:** Not Applicable

**Details:**

Group project presentation of about 20 minutes on an engineering solution for an environmental problem.

Written and verbal feedback provided.

**Additional details:**

See Moodle for further details.

**Turnitin setting:** This is not a Turnitin assignment

**Assessment 3: Research Report**

**Start date:** Not Applicable

**Details:**

Technology assessment report, 2500 to 3000 words maximum

written feedback provided

**Additional details:**

See Moodle for further details.

**Turnitin setting:** This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

**Assessment 4: Review of Readings**

**Start date:** Not Applicable

**Details:**

Short weekly reviews of readings, max 500 words each for 3 weeks as selected by students

Written feedback provided.

**Additional details:**

See Moodle for further details.

**Turnitin setting:** This is not a Turnitin assignment

## Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

# Course Schedule

[View class timetable](#)

## Timetable

| Date | Type | Content |
|------|------|---------|
| Week 1: 31 May - 4 June | Seminar | Introduction: Environmental Professionals and Society. |
| Week 2: 7 June - 11 June | Seminar | Extractive Industries |
| Week 3: 15 June - 18 June | Seminar | Consumer Goods |
| Week 4: 21 June - 25 June | Seminar | Household Waste |
| Week 5: 28 June - 2 July | Seminar | Urban Infrastructure |
| Week 6: 5 July - 9 July | Seminar | Urban Infrastructure |
| Week 7: 12 July - 16 July | Seminar | Technology Assessment |
| Week 8: 19 July - 23 July | Seminar | Technology & Development |
| Week 9: 26 July - 30 July | Seminar | Aboriginal Perspectives |
| Week 10: 2 August - 6 August | Seminar | Review |

# Resources

## Prescribed Resources

See Moodle for details.

## Recommended Resources

See Moodle for details.

## Course Evaluation and Development

Courses are periodically reviewed and students' feedback is used to improve them. Feedback is gathered from students using myExperience. Students are encouraged to complete their surveys by accessing the personalised web link via the Moodle course site.

# Submission of Assessment Tasks

## Turnitin Submission

If you encounter a problem when attempting to submit your assignment through Turnitin, please telephone External Support on 9385 3331 or email them on externalteltsupport@unsw.edu.au . Support hours are 8:00am – 10:00pm on weekdays and 9:00am – 5:00pm on weekends (365 days a year). If you are unable to submit your assignment due to a fault with Turnitin you may apply for an extension, but you must retain your ticket number from External Support (along with any other relevant documents) to include as evidence to support your extension application. If you email External Support you will automatically receive a ticket number, but if you telephone you will need to specifically ask for one. Turnitin also provides updates on their system status on Twitter.

Generally, assessment tasks must be submitted electronically via either Turnitin or a Moodle assignment. In instances where this is not possible, it will be stated on your course's Moodle site with alternative submission details.

For information on how to submit assignments online via Moodle: https://student.unsw.edu.au/how-submit-assignment-moodle

# Academic Honesty and Plagiarism

Plagiarism is using the words or ideas of others and presenting them as your own. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement.

UNSW groups plagiarism into the following categories:

Copying: using the same or very similar words to the original text or idea without acknowledging the source or using quotation marks. This also applies to images, art and design projects, as well as presentations where someone presents another's ideas or words without credit.

Inappropriate paraphrasing: Changing a few words and phrases while mostly retaining the original structure and/or progression of ideas of the original, and information without acknowledgement. This also applies in presentations where someone paraphrases another's ideas or words without credit and to piecing together quotes and paraphrases into a new whole, without appropriate referencing.

Collusion: working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student before the due date, or for the purpose of them plagiarising at any time, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.

Inappropriate citation: Citing sources which have not been read, without acknowledging the "secondary" source from which knowledge of them has been obtained.

Duplication ("self-plagiarism"): submitting your own work, in whole or in part, where it has previously been prepared or submitted for another assessment or course at UNSW or another university.

Correct referencing practices:

- Paraphrasing, summarising, essay writing and time management
- Appropriate use of and attribution for a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre (http://www.lc.unsw.edu.au/). Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and proper referencing of sources in preparing all assessment items.

UNSW Library also has the ELISE tool available to assist you with your study at UNSW. ELISE is designed to introduce new students to studying at UNSW but it can also be a great refresher during your study.

Completing the ELISE tutorial and quiz will enable you to:

- analyse topics, plan responses and organise research for academic writing and other assessment tasks
- effectively and efficiently find appropriate information sources and evaluate relevance to your needs
- use and manage information effectively to accomplish a specific purpose
- better manage your time

- understand your rights and responsibilities as a student at UNSW
- be aware of plagiarism, copyright, UNSW Student Code of Conduct and Acceptable Use of UNSW ICT Resources Policy
- be aware of the standards of behaviour expected of everyone in the UNSW community
- locate services and information about UNSW and UNSW Library

Some of these areas will be familiar to you, others will be new. Gaining a solid understanding of all the related aspects of ELISE will help you make the most of your studies at UNSW.
http://subjectguides.library.unsw.edu.au/elise/aboutelise

# Academic Information

For essential student information relating to:

- requests for extension;
- late submissions guidelines;
- review of marks;
- UNSW Health and Safety policies;
- examination procedures;
- special consideration in the event of illness or misadventure;
- student equity and disability;
- and other essential academic information, see

https://www.arts.unsw.edu.au/current-students/academic-information/protocols-guidelines/

## Image Credit

Warragamba Dam taken by Peter Bertok on the 25th of January
2004 https://en.wikipedia.org/wiki/Warragamba_Dam#/media/File:Warragamba_Dam.jpg

## CRICOS

CRICOS Provider Code: 00098G

## Acknowledgement of Country

We acknowledge the Bedegal people who are the traditional custodians of the lands on which UNSW Kensington campus is located.