ENVS7205

Environmental Pollution

Session 2, Weekday attendance, North Ryde 2020

Department of Earth and Environmental Sciences

Contents

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Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to timetable viewer. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff
Vladimir Strezov
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Credit points
10

Prerequisites
Admission to MRes

Corequisites

Co-badged status
ENVS8205 - Environmental Pollution

Unit description
This unit focuses on the chemical and physical aspects of environmental pollution in the air and water. It explores how a number of major chemical pollutants are released into the environment, how they react, move and impact the environment and human health. The presentation is set in a context of the science and management of air and water quality. The unit includes treatment of problems in air pollution, global atmospheric change, water pollution and the water resources of Australia.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

ULO1: explain the fundamental principles of environmental pollution and impacts on health

ULO2: collect and interpret raw data in environmentally significant terms

ULO3: demonstrate modelling skills for environmental impact assessment of pollutant emissions

ULO4: responsibly work in a team to collaboratively assess environmental problems of

real life industrial emissions

ULO5: write clear and cogent reports, assessing environmental quality matters for management and public audiences

General Assessment Information

Assessment Criteria

Assessment at Macquarie University is standards-based, as outlined in the Assessment Policy. This means that your work will be assessed against clear criteria, and these criteria (e.g. in a rubric) will be made available when the assessment tasks are released to you on iLearn.

Submission of Assessments

All assessments must be submitted online through Turnitin unless otherwise indicated. Links for the submission of each assessment will be available on iLearn.

You should always check that you have uploaded the correct file. If you have a problem, please email the Unit Convenor with your correct file. You must also keep a copy of your assessments until the end of semester in case there is a problem with your submission. It is your responsibility to ensure that you can provide a copy of your assessment if requested.

Marking of Assessments

Assignments will usually be marked through Turnitin with grades provided through Gradebook on iLearn. Please do not submit your assessments via email or in hard copy unless requested (e.g. a sketch or drawing).

We aim to return your assessment grades and feedback within two to three weeks of the date that you submitted it. We appreciate your patience and will advise you through iLearn when your marked assessments and feedback are available for viewing.

Penalties for Late Assessments

The penalty for late submission of assessments in this unit is *ten percent (10 %) of the assessment value per day*, calculated from the due time and date. This means that if the assignment is worth a total of 30 marks (or 30 % of the unit) you will lose 3 marks for each day it is late. This is a hefty penalty designed to make you aware of the importance of organising yourself around assessment due dates. The penalty will be applied over weekdays and weekends unless you have been granted an extension prior to the due date.

Extensions for Assessments

To obtain an extension for an assessment task, you will need to follow the formal process as outlined in the Special Consideration Policy, and you must provide appropriate supporting evidence (e.g. medical certificate - see advice for Special Consideration requests). The final decision regarding the granting of an extension lies with the unit convenor. Permission for extensions must be sought *before the due date* unless there are exceptional circumstances. Please let us know of problems in advance or as soon as possible, not after the event. We are likely to be much more sympathetic and able to accommodate your circumstance

if you follow this advice.

Assessment Tasks

Name	Weighting	Hurdle	Due
Quiz 1	20%	No	Week 6
Report	30%	No	Week 8
Quiz 2	20%	No	Week 11
Project	30%	No	Week 13

Quiz 1

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 14 hours
Due: **Week 6**
Weighting: **20%**

The quizzes will test knowledge and may be online or in-class. See iLearn for a detailed list of quizzes in this unit.

On successful completion you will be able to:

- explain the fundamental principles of environmental pollution and impacts on health
- demonstrate modelling skills for environmental impact assessment of pollutant emissions

Report

Assessment Type [1]: Report
Indicative Time on Task [2]: 21 hours
Due: **Week 8**
Weighting: **30%**

This assessment will consist of preparing a consulting report assessing environmental pollution data of a case study.

On successful completion you will be able to:

- explain the fundamental principles of environmental pollution and impacts on health

- collect and interpret raw data in environmentally significant terms

- demonstrate modelling skills for environmental impact assessment of pollutant emissions

- responsibly work in a team to collaboratively assess environmental problems of real life industrial emissions

- write clear and cogent reports, assessing environmental quality matters for management and public audiences

Quiz 2

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 14 hours
Due: **Week 11**
Weighting: **20%**

The quizzes will test knowledge and may be online or in-class. See iLearn for a detailed list of quizzes in this unit.

On successful completion you will be able to:

- explain the fundamental principles of environmental pollution and impacts on health

- demonstrate modelling skills for environmental impact assessment of pollutant emissions

Project

Assessment Type [1]: Project
Indicative Time on Task [2]: 25 hours
Due: **Week 13**
Weighting: **30%**

The project will involve modeling and assessment of environmental impacts of industrial operations.

On successful completion you will be able to:

- collect and interpret raw data in environmentally significant terms

- demonstrate modelling skills for environmental impact assessment of pollutant emissions

- responsibly work in a team to collaboratively assess environmental problems of real life industrial emissions

- write clear and cogent reports, assessing environmental quality matters for management

and public audiences

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1 If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

2 Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Unit iLearn

This unit has an iLearn page that can be accessed through ilearn.mq.edu.au. It contains important information and other materials relating to the unit, including details and links for assessments.

Communication

The unit iLearn is the primary way that we communicate with you. Please check it regularly for announcements and posts. You are encouraged to use the Discussion Board on iLearn to post questions and generate discussion with other students. Please only email the convenor with private matters – all other questions should be posted on iLearn.

Unit Organisation

This unit is delivered in **(modules/weekly topics).** The organisation of these is outlined in a detailed unit schedule which is available on iLearn.

Classes

The class timetable for this unit can be found through the Timetable portal. You should also check the unit schedule as some weeks may have other instructions or locations.

Workload

The expected workload for this 10-credit point unit is 150 hours of activity, comprising 76 hours on learning activities and 74 hours on assessment tasks.

Requirements to complete this unit satisfactorily

To complete this unit satisfactorily, you must:

1. Participate in all scheduled classes;

2. Complete all assessments; and

3. Achieve a pass grade or higher.

The descriptions for grades common to all coursework units offered by Macquarie University are outlined in Schedule 1 of the Assessment Policy.

Recommended Texts and/or Materials

There is no set text for this unit. The following lists some useful references.

A. Specialist texts

Harrison RM 1999 Understanding our Environment: An Introduction to Environmental Chemistry and Pollution (3rd ed.) Royal Society of Chemistry, London.

Stoker HS & Seager SL Environmental Chemistry: Air and Water Pollution, (2nd ed).

vanLoon GW and Duffy SJ 2000 Environmental Chemistry - a global perspective.

B. Reports

Goedkoop, M. et al. ReCiPe A life cycle impact assessment method which comprises harmonised category indicators at the midpoint and the endpoint level, 2009.

State of the Environment Reports 1996, 2001, 2006 & 2011 published by the Department of Sustainability, Environment, Water, Population and Communities are key resources which summarise many of the important issues which will be treated in this course, and also contains a comprehensive bibliography in many of the areas. Web site http://soe.environment.nsw.gov.au/

Simpson, S.L. et al. Handbook for Sediment Quality Assessment, CSIRO, Lucas Heights, Australia, 2005.

C. Books Boyd CE, 2000 Water Quality: An Introduction, Kluwer Academic Publishers.

Connell DW 1993 Water Pollution: Causes and Effects in Australia and New Zealand 3rd ed. Uni Qld Press, Brisbane.

Laws E.A 1993 Aquatic Pollution: An Introductory Text 2nd edition John Wiley.

Stensel D, Tchobanoglous G & Burton FL 2002 Wastewater Engineering: Treatment and Reuse, Metcalf & Eddy McGraw Hill, New York.

Williams W.D. (ed.) An Ecological Basis for Water Resource Management. American Public Health Association 1995 Standard Methods for the Examination of Water and Wastewater (19 ed.) APHA, AWWA, WPCF, Washington.

Technology Used and Required

This unit will use iLearn and Echo360. See the Instructions on how to log in to iLearn and the iLearn quick guides for students which will help you:

- Getting started - Find out how to navigate and familiarise yourself with the iLearn environment
- Activities - Learn how to effectively complete the activities required of you in iLearn
- Assignments and Gradebook - Find out how to submit assessments and view your grades using iLearn

- Online study tips - Studying online is a unique experience, learn how to navigate it here
- Discussion forums - Explore the different types, and features of discussion forums in iLearn
- Lecture recordings - Find out how to access lectures online, as well as the features available to you.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.