ENVS834

Environmental Research Report

S1 Evening 2016

Dept of Environmental Sciences

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General Information

Unit convenor and teaching staff
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Credit points
4

Prerequisites
Admission to MEnv and 16cp at 800 level

Corequisites

Co-badged status

Unit description
ENVS834 Environmental Research Report is the independent research unit in which students conduct research on a specific topic within the subject area of environmental sciences. The identification of the subject is to be negotiated with the unit supervisor prior to commencement of the unit and a workplan signed by the student, supervisor and the Head of the Department. Students will work individually under the supervision of a member of staff and/or a suitably qualified external professional. With ENVS834 students will gain in-depth understanding of the research methods applied to the selected environmental science research subject, conduct research project through evaluation of published data or by conducting original experiments. The students will also present the research outcomes to audience specialised in the field.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at http://students.mq.edu.au/student_admin/enrolmentguide/academicdates/

Learning Outcomes
1. Ability to design an individual research project
2. Develop understanding in specific experimental and/or analytical methods applicable for environmental science research
3. Collect experimental data by applying research methodology or gather the data from secondary published sources
4. Critically evaluate and synthesize the data to achieve the research objectives
5. Effectively communicate the scientific outcomes both verbally and in writing
General Assessment Information

Submission of all assignments is through iLearn only. Hard copy assignments will not be accepted.

Late submission of assignments attract penalty of 10% off the mark for each day of late submission. Extensions may be given upon request for exceptional circumstances substantiated with supporting evidence. Other work or study commitments are generally not accepted as a reason for late submission of assignments.

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of research methods</td>
<td>30%</td>
<td>Week 6 (4 April 2016)</td>
</tr>
<tr>
<td>Presentation</td>
<td>20%</td>
<td>Week 12 (30 May 2016)</td>
</tr>
<tr>
<td>Research report</td>
<td>50%</td>
<td>Week 13 (6 June 2016)</td>
</tr>
</tbody>
</table>

Review of research methods

Due: Week 6 (4 April 2016)
Weighting: 30%

Students should select a topic for the environmental research report. In this assessment at least 3 different methodological methodologies used to conduct the research topic of choice should be reviewed and compared. A 2,000 word assignment should be written which demonstrates the working principles of the selected methods.

This Assessment Task relates to the following Learning Outcomes:

- Ability to design an individual research project
- Develop understanding in specific experimental and/or analytical methods applicable for environmental science research
- Collect experimental data by applying research methodology or gather the data from secondary published sources
- Effectively communicate the scientific outcomes both verbally and in writing

Presentation

Due: Week 12 (30 May 2016)
Weighting: 20%

Individual 10 minute class presentations of the literature review and design of a 1 year original project plan, which will include a timeline and budget.
This Assessment Task relates to the following Learning Outcomes:

- Ability to design an individual research project
- Effectively communicate the scientific outcomes both verbally and in writing

Research report

Due: **Week 13 (6 June 2016)**

Weighting: **50%**

Students should select a research topic of choice, and perform original research or review of relevant state of information in peer-reviewed literature or high level scientific reports. The topic of choice can be based on a case study, evaluation of institutional practice, empirical investigation, or a critical review of the science, policy or practice by different institutions either nationally or globally.

This Assessment Task relates to the following Learning Outcomes:

- Ability to design an individual research project
- Collect experimental data by applying research methodology or gather the data from secondary published sources
- Critically evaluate and synthesize the data to achieve the research objectives
- Effectively communicate the scientific outcomes both verbally and in writing

### Delivery and Resources

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 February</td>
<td>6pm-8pm</td>
<td>E5A 230</td>
<td>Unit introduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unit objectives and assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Introduction principles to literature review</td>
</tr>
<tr>
<td>7 March</td>
<td>8pm</td>
<td>by email</td>
<td>Research topic selection</td>
</tr>
<tr>
<td>14 March to 1 April</td>
<td>by appointment</td>
<td>E8A 374</td>
<td>Consultation</td>
</tr>
<tr>
<td>4 April</td>
<td>8pm</td>
<td>iLearn</td>
<td>Assignment on review of research methods due</td>
</tr>
<tr>
<td>25 April to 27 May</td>
<td>by appointment</td>
<td>E8A 374</td>
<td>Consultation</td>
</tr>
</tbody>
</table>
Students are expected to allocate 12 hours per week of their workload towards this unit to successfully deliver the assignments.

**Resources**

Students are expected to source original peer-reviewed literature relevant for their topic of choice for the methodological review and research report. The databases used to search literature are:

Macquarie University Library [http://multisearch.mq.edu.au/](http://multisearch.mq.edu.au/)


Example journals where high impact articles in the discipline of environmental sciences are published:

Environmental Science and Technology

Environmental Health Perspectives

Remote Sensing of Environment

Energy and Environmental Science

Global Environmental Change

Science of the Total Environment

Environmental Pollution

Atmospheric Environment

Journal of Environmental Management

Environment International

Environmental Research Letters
Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html


Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.

In addition, a number of other policies can be found in the Learning and Teaching Category of 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/support/student_conduct/

Results

Results shown in iLearn, 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.

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 improve your marks and take control of your study.

• Workshops
Student Enquiry Service
For all student enquiries, visit Student Connect at ask.mq.edu.au

Equity 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.

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.

Graduate Capabilities

PG - Discipline Knowledge and Skills
Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

• Ability to design an individual research project
• Develop understanding in specific experimental and/or analytical methods applicable for environmental science research

Assessment tasks

• Review of research methods
• Research report

PG - Critical, Analytical and Integrative Thinking
Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.
This graduate capability is supported by:

**Learning outcomes**

- Ability to design an individual research project
- Develop understanding in specific experimental and/or analytical methods applicable for environmental science research
- Collect experimental data by applying research methodology or gather the data from secondary published sources
- Critically evaluate and synthesize the data to achieve the research objectives

**Assessment tasks**

- Review of research methods
- Research report

**PG - Research and Problem Solving Capability**

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

**Learning outcomes**

- Ability to design an individual research project
- Develop understanding in specific experimental and/or analytical methods applicable for environmental science research
- Collect experimental data by applying research methodology or gather the data from secondary published sources
- Critically evaluate and synthesize the data to achieve the research objectives

**Assessment tasks**

- Review of research methods
- Research report

**PG - Effective Communication**

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:
Learning outcome

• Effectively communicate the scientific outcomes both verbally and in writing

Assessment tasks

• Review of research methods
• Presentation
• Research report

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues.

This graduate capability is supported by:

Learning outcome

• Effectively communicate the scientific outcomes both verbally and in writing

Assessment task

• Presentation

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

• Ability to design an individual research project
• Collect experimental data by applying research methodology or gather the data from secondary published sources
• Critically evaluate and synthesize the data to achieve the research objectives
• Effectively communicate the scientific outcomes both verbally and in writing

Assessment tasks

• Presentation
• Research report