School of Earth & Environmental Sciences

EESC203: Biogeography and Environmental Change

Subject Outline
Autumn, 2016
On-Campus / Flexible
Wollongong

Subject Information
Credit Points: 6
Pre-requisite(s): Nil
Co-requisite(s): Nil
Restrictions: Nil
Contact Hours: 1 x 1hr lecture; 1 x 3hr practical per week (most weeks)

Subject Contacts
Subject Coordinator/Lecturer
Name: A/PR Laurie Chisholm
Location: Building 41, Room G25
Telephone: 61 2 4221 3765
Email: Laurie.Chisholm@uow.edu.au
Consultation mode and times: Email for appointment

Lecturer
Name: Dr Tim Cohen
Location: Building 41, Room G32
Telephone: 61 2 4239 2375
Email: tim_cohen@uow.edu.au
Consultation mode and times: Friday 2.30 – 4.30 pm or Email for appointment

Student Support and Advice
For general enquiries please contact StudentHub 41:
Location: 41.138B
Telephone: 61 2 4221 3492
Email: smah-students@uow.edu.au
Student Consultation and Communication

University staff receive many emails each day. In order to enable them to respond to your emails appropriately and in a timely fashion, students are asked to observe basic requirements of professional communication:

**Please ensure that you include your full name and student number and identify your practical class or tutorial group in your email so that staff know who they are communicating with and can follow-up personally where appropriate.**

**Consider what the communication is about**
- Is your question addressed elsewhere (e.g. in the subject outline or, on the eLearning site)?
- Is it something that is better discussed in person or by telephone? This may be the case if your query requires a lengthy response or a dialogue in order to address. If so, see consultation times above and/or schedule an appointment.
- Are you addressing your request to the most appropriate person?

**Specific email subject title to enable easy identification of issue**
- Identify the subject code of the subject you are enquiring about (as staff may be involved in more than one subject) put this in the email subject heading. Add a brief, specific query reference after the subject code where appropriate.

**Professional courtesy**
- Address the staff member appropriately by name (and formal title if you do not yet know them).
- Use full words (avoid ‘text-speak’ abbreviations), correct grammar and correct spelling.
- Be respectful and courteous.
- Allow 3 – 4 working days for a response before following up. If the matter is legitimately urgent, you may wish to try telephoning the staff member (and leaving a voicemail message if necessary) or inquiring at the School Office.
Table of Contents

Section A: General Information ............................................................................................................... 4
   Subject Learning Outcomes .................................................................................................................. 4
   Subject Description ................................................................................................................................. 4
   eLearning Space .................................................................................................................................. 4
   Lecture, Tutorial, Laboratory Times ...................................................................................................... 4
   Readings, References and Materials ....................................................................................................... 4
      Textbooks ........................................................................................................................................ 4
      Prescribed Readings (includes eReadings): ....................................................................................... 4
      Materials: ....................................................................................................................................... 5
      Recommended Readings: .................................................................................................................... 5
   Recent Changes to this Subject .............................................................................................................. 5
   Fieldwork Safety Guidelines .................................................................................................................. 5
   Schedule of Learning* ........................................................................................................................... 6

Section B: Assessment ............................................................................................................................... 7
   Assessment Summary .............................................................................................................................. 7
   Details of Assessment Tasks ................................................................................................................... 7
   Minimum Requirements for a Pass in this Subject .................................................................................. 8
      Minimum Student Attendance and Participation .............................................................................. 9
   Scaling .................................................................................................................................................. 9
   Late Submission ................................................................................................................................... 9
      Late Submission Penalty .................................................................................................................... 9
   Supplementary Assessments ................................................................................................................ 10
   System of Referencing Used for Written Work ..................................................................................... 10
   Use of Internet Sources ......................................................................................................................... 10
   Plagiarism .......................................................................................................................................... 10
   Submission of Assessments .................................................................................................................. 10
   Assessment Return ............................................................................................................................... 10

Section C: General Advice ........................................................................................................................ 11
   University Policies ................................................................................................................................. 11
   Student Support Services and Facilities ............................................................................................... 12
   Student Etiquette .................................................................................................................................. 12
   Version Control Table ........................................................................................................................... 12
Section A: General Information

Subject Learning Outcomes

On completion of this subject, students should be able to:

1. Describe global scale patterns between vegetation and climate relationships;

2. Display a thorough understanding of interactions between past and present processes influencing the distribution of Australian flora;

3. Define techniques used to reconstruct past environmental changes;

4. Apply field data collection and analysis techniques for the description and interpretation of biotic distributions;

5. Critically evaluate human impact on the present Australian environment;

6. Understand the concept of ecological change, over both short (successional) and long (geological) timescales.

Subject Description

The present environment of Australia is the legacy of interactions between geological, biological and hydrological processes and human impacts. This subject links the biogeographical study of the distribution of plants and animals and their interaction with the physical environment to long-term environmental change using combined field and laboratory practicals. Set within the context of long-term geological and climate change, topics include: the origins of Australian flora and fauna, the impact of long-term climatic change, anthropogenic effects on biota, and the impact of fire. Modern techniques used to reconstruct ecosystems and climates, map vegetation and human impact, and to analyse vegetation data are presented.

eLearning Space

This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column. For information regarding the eLearning spaces please use the following link:

http://uowblogs.com/moodlelab/files/2013/05/Moodle_StudentGuide-1petpo7.pdf

Lecture, Tutorial, Laboratory Times

All timetable information is subject to variation. Check latest timetabling information on the ‘Current Student’ webpage on UOW website or log into SOLS to view your personal timetable prior to attending classes.


Timetable information can be accessed from

Key University Dates can be accessed from

Readings, References and Materials

Textbooks
There is no set text (s) required to be purchased by students enrolled in this class.

Prescribed Readings (includes eReadings):
A detailed list of e-readings is provided on the subject’s Moodle site, these prescribed readings are fundamental to success in this subject. A separate reading list for Section II of the subject will be distributed later in the session.
Materials:
A Practical Guide for Weeks 3, 8 - 11 will be provided. Practical material for Practical B will be distributed in Weeks 7 and 8.
A series of pre-practical exercises are required for Practicals A – E, and are available in the subject Moodle site.

Recommended Readings:
The following references are useful materials for the subject:

For practical field work (Weeks 3, 8 – 11) the following book is available from the Library: McDonald et al (any edition) Australian Soil and Land Survey Field Handbook, Inkata Press.

Good field guides are extremely useful for practical work in this subject, other subjects at university and any future work in the field; especially if you have a particular interest in vegetation studies. Good overall guides to the plants of this region (which do not assume much prior botanical knowledge) are:

Recent Changes to this Subject
Nil

Fieldwork Safety Guidelines
The rules below are general rules that are required when participating in practicals which involve fieldwork.

- Before commencing fieldwork you are to ensure that you understand specific procedures and policy related to fieldwork safety.
- You will need to review a Risk Assessment form for the fieldwork to be conducted, then complete a Fieldwork Participant Acknowledgement form before commencing any fieldwork. These materials will be made available by the Subject Coordinator.
- You must inform the Subject Coordinator of any medical conditions which may impact upon your ability to participate in fieldwork before commencing any fieldwork.
- All Reasonable Adjustment cases must be discussed with the Subject Coordinator prior to commencing fieldwork.
- Attendance on field excursions may be denied to students who do not abide by these, and other conditions which may be specified by the Subject Coordinator.
## Schedule of Learning*

<table>
<thead>
<tr>
<th>Week</th>
<th>Week Commencing</th>
<th>Lecture</th>
<th>Practical</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29/02/2016</td>
<td>Introduction to Biogeography Global scale patterns</td>
<td>none</td>
<td>Field Participant Acknowledgement Form Assessment 2 Topics</td>
</tr>
<tr>
<td>2</td>
<td>07/03/2016</td>
<td>Processes and controls of landscapes and ecosystems</td>
<td>Drop in session: Q&amp;A Assessment 1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>14/03/2016</td>
<td>Global environmental transformations</td>
<td>A: Botanic Gardens</td>
<td>Assessment 1 - Quiz 1 Assessment 2 draft</td>
</tr>
<tr>
<td>4</td>
<td>21/03/2016</td>
<td>Global environmental transformations</td>
<td>B: Pre-Lab</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>28/03/2016</td>
<td>Fire – the fire regime and vegetation responses Fire and the landscape response</td>
<td>B: Fire in the Landscape</td>
<td>Assessment 2 due</td>
</tr>
<tr>
<td>6</td>
<td>04/04/2016</td>
<td>Fire and the landscape response Guest Lecture</td>
<td>B: Fire in the landscape, continued</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>11/04/2016</td>
<td>Vegetation communities Vegetation structure and dynamics</td>
<td></td>
<td>Pre-practicals and associated no-value quizzes begin</td>
</tr>
<tr>
<td>8</td>
<td>18/04/2016</td>
<td>Environmental factors Environmental gradients</td>
<td>C: Illawarra escarpment vegetation sites</td>
<td>Assessment 3 due Local field practicals begin (C-F)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Mid-Session Recess 25th April-29th April</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>02/05/2016</td>
<td>Habitats, assemblages and disturbance Human impacts</td>
<td>D: Diversity &amp; Sample Area (Maddens Plains)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>09/05/2016</td>
<td>Island biogeography</td>
<td>E: Coastal plant communities (Puckey's)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>16/05/2016</td>
<td>Successional and zonation patterns Looking towards the future</td>
<td>F: Estuarine plant communities (Minnamurra)</td>
<td>Assessment 4 - Quiz 2</td>
</tr>
<tr>
<td>12</td>
<td>23/05/2016</td>
<td>Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>30/05/2016</td>
<td>No lecture</td>
<td></td>
<td>Assessment 5 Test (Practical A timeslot)</td>
</tr>
</tbody>
</table>

*The above timetable should be used as a guide only, as it is subject to change. Students will be advised of any changes as they become known.

*The above timetable should be used as a guide only, as it is subject to change. Students will be advised of any changes as they become known.
Section B: Assessment

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Form of Assessment</th>
<th>Due Date</th>
<th>Return/Feedback Due Dates</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment 1</td>
<td>Quiz 1</td>
<td>Week 3</td>
<td>Immediate</td>
<td>10%</td>
</tr>
<tr>
<td>Assessment 2</td>
<td>Research Assignment</td>
<td>Draft Week 3; Final 1 April</td>
<td>Week 4</td>
<td>20%</td>
</tr>
<tr>
<td>Assessment 3</td>
<td>Group mapping exercise</td>
<td>22 April</td>
<td>Week 6</td>
<td>30%</td>
</tr>
<tr>
<td>Assessment 4</td>
<td>Quiz 2</td>
<td>Week 11</td>
<td>Immediate</td>
<td>10%</td>
</tr>
<tr>
<td>Assessment 5</td>
<td>Test</td>
<td>Week 13 Practical Class</td>
<td>Recess</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total Marks</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Details of Assessment Tasks

Assessment tasks will be marked using explicit criteria that are provided below to students prior to submission.

Assessment 1
- Quiz 1
- Due date: Week 3
- Weighting: 10%
- Submission: Submit an electronic copy of your assessment via Moodle
- Type of Collaboration: Individual Assessment
- Length: Variable
- Details: Selected module/lecture content
- Style and format: Online quiz
- Subject Learning Outcomes: 1, 3, 4
- Marking Criteria: The marking criteria will be made available on your eLearning site by week 1 of session.

Assessment 2
- Research Assignment - Annotated Bibliography & Summary
- Due date: Draft Week 3; Final 1 April
- Weighting: 20%
- Submission: Submit an electronic copy of your assessment via upload to Moodle
- Type of Collaboration: Individual Assessment
- Length: 5 x approximately 300 word annotations; one page summary
- Details: Develop an annotated bibliography on a topic provided, plus summarise findings
- Style and format: Annotated bibliography and short essay-style summary
- Subject Learning Outcomes: 1, 2, 7
- Marking Criteria: The marking criteria will be made available on your eLearning site by week 1 of session.
### Assessment 3

**Group Mapping Exercise – Fire module**
- **Due date**: 22 April
- **Weighting**: 30%
- **Submission**: Submit an electronic copy of your assessment via upload to Moodle
- **Type of Collaboration**: Collaborative and Individual Assessment
- **Length**: See Guidelines (Moodle)
- **Details**: In-class group-based research/GIS analysis exercise & individual submission
- **Style and format**: See Guidelines (Moodle)
- **Subject Learning Outcomes**: 1, 2, 3, 4, 7
- **Marking Criteria**: The marking criteria will be made available on your eLearning site by week 1 of session.

### Assessment 4

**Quiz 2**
- **Due date**: Week 11
- **Weighting**: 10%
- **Submission**: Submit an electronic copy of your assessment via Moodle
- **Type of Collaboration**: Individual Assessment
- **Length**: Variable
- **Details**: Selected module/lecture content.
- **Style and format**: Online quiz
- **Subject Learning Outcomes**: 1, 3, 4
- **Marking Criteria**: The marking criteria will be made available on your eLearning site by week 1 of session.

### Assessment 5

**Test**
- **Due date**: Week 13 Practical Class
- **Weighting**: 30%
- **Submission**: Test papers and answers must be submitted at the conclusion of the test.
- **Type of Collaboration**: Individual Assessment
- **Length**: 1 hour
- **Details**: Multiple choice and short answer questions of variable marks, comprehensive, closed book
- **Style and format**: Test
- **Subject Learning Outcomes**: 1, 2, 4, 7
- **Marking Criteria**: The marking criteria will be made available on your eLearning site by week 1 of session.

### Minimum Requirements for a Pass in this Subject

To receive a clear pass in this subject a total mark of 50% or more must be achieved. In addition, failure to meet any of the minimum performance requirements is grounds for awarding a Technical Fail (TF) in the subject, even where total marks accumulated are greater than 50%.

The minimum performance requirements for this subject are:
- achieve satisfactory performance of at least 45% in the final examination
- attempt all assessment tasks
Minimum Student Attendance and Participation

It is expected that students will allocate 12 hours per week to this subject, including any required class attendance, completion of prescribed readings and assessment tasks.

Student attendance at practicals is compulsory and students must attend 100% of classes. Absences will require the submission of an application for Academic Consideration via SOLS and the presentation of suitable documentation, for example a Medical Certificate, to Student Central as soon as practical. For further details about applying for academic consideration visit the Student Central webpage: http://www.uow.edu.au/student/central/academicconsideration/index.html

Field trips: There are five (5) local field trips in this subject in which students undertake a variety of field observations and assessments directly related to subject content. There is a pre-practical and associated no-value quiz due prior to each field practical. These field practicals are considered compulsory as content is examinable, and absences must be explained/waived by the subject coordinator. Students who do not attend field practicals may be required to complete supplementary assessment.

Scaling

Scaling may occur in this subject at the end of session by the Unit Assessment Committee and/or Faculty Assessment Committee (FAC). Marks will only be scaled to ensure fairness/parity of marking across groups of students. Scaling will not affect any individual student's rank order within their cohort. For more information refer to Assessment Guidelines – Scaling: http://www.uow.edu.au/about/policy/UOW058609.html

Late Submission

Late submission of an assessment task without an approved extension of the deadline is not acceptable. If you are unable to submit an assessment due to extenuating circumstances (e.g. medical grounds or compassionate grounds), you can make an application of academic consideration. Not all circumstances qualify for academic consideration. For further details about applying for academic consideration visit the Student Central webpage: http://www.uow.edu.au/student/central/academicconsideration/index.html

Late Submission Penalty

Late submission of an assessment task without an approved extension of the deadline is not acceptable. Marks will be deducted for late submission at the rate of 10% of the total possible marks for that particular assessment task per day. This means that if a piece of work is marked out of 100, then the late penalty will be 10 marks per day (10% of 100 possible marks per day). The formula for calculating the late penalty is the total possible marks x 0.10 x number of days late. For the purposes of this policy a weekend (Saturday and Sunday) will be regarded as two days.

For example:

- Student A submits an assessment which is marked out of 100. The assessment is submitted 4 days late. This means that a late penalty of 40 marks will apply (100 x 0.10 x 4). The assessment is marked as per normal out of 100 and is given a mark of 85/100, and then the late penalty is applied. The result is that the student receives a final mark of 45/100 for the assessment (85 (original mark) – 40 marks (late penalty) = 45/100 (final mark)).

- Student B submits a report which is marked out of 20. The report is submitted three days late. This means that a late penalty of 6 marks will apply ((20 x 0.10 x 3). The report is marked as per normal out of 20 and is given a mark of 15/20, and then the late penalty is applied. The result is that the student receives a final mark of 9/20 for the report (15 (original mark) – 6 marks (late penalty) = 9/20 (final mark)).

No marks will be awarded for work submitted after the assessment has been returned to the students (except where a particular assessment task is undertaken by students at different times throughout the session, but where the assessment is based on experiments or case studies specific to a student). Notwithstanding this, students must complete all assessment tasks to a satisfactory standard and submit them, regardless of lateness or loss of marks, where submission is a condition of satisfactorily completing the subject.
Supplementary Assessments
Supplementary assessment may be offered to students whose performance in this subject is close to that required to pass the subject, and are otherwise identified as meritng an offer of a supplementary assessment. The precise form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made.

Students can log on to SOLS and click on the link titled “Supplementary Assessment” to view any applicable offers or use the following link;

System of Referencing Used for Written Work
The Author-Date (Harvard) referencing system should, unless otherwise specified for a particular assessment (check Details of Assessment Tasks), be utilised. A summary of the Harvard system can be accessed on the Library website at: http://public01.library.uow.edu.au/refcite/style-guides/html/

Use of Internet Sources
Students are able to use the Internet to access the most current information on relevant topics and information. Internet sources should only be used after careful critical analysis of the currency of the information, the role and standing of the sponsoring institution, reputation and credentials of the author, the clarity of the information and the extent to which the information can be supported or ratified by other authoritative sources.

Plagiarism
The full policy on Academic Integrity and Plagiarism is found in the Policy Directory on the UOW website.

“The University's Academic Integrity and Plagiarism Policy, Faculty Handbooks and subject guides clearly set out the University's expectation that students submit only their own original work for assessment and avoid plagiarising the work of others or cheating. Re-using any of your own work (either in part or in full) which you have submitted previously for assessment is not permitted without appropriate acknowledgement. Plagiarism can be detected and has led to students being expelled from the University.

The use by students of any website that provides access to essays or other assessment items (sometimes marketed as ‘resources’), is extremely unwise. Students who provide an assessment item (or provide access to an assessment item) to others, either directly or indirectly (for example by uploading an assessment item to a website) are considered by the university to be intentionally or recklessly helping other students to cheat. This is considered academic misconduct and students place themselves at risk of being expelled from the University."

Submission of Assessments
Refer to the submission requirements under the details of the individual assessments. Students should ensure that they receive a receipt acknowledging submission. Students will be required to produce this in the event that an assessment task is considered to be lost. Students are also expected to keep a copy of all their submitted assessments in the event that re-submission is required.

Assessment Return
Students will be notified when they can collect or view their marked assessment. In accordance with University Policy marked assessments will usually only be held for 21 days after the declaration of marks for that assessment.
Section C: General Advice

Students should refer to the Faculty of Science, Medicine and Health website for information on policies, learning and support services and other general advice.

University Policies

Students should be familiar with the following University policies:

a. Code of Practice – Teaching and Assessment

b. Code of Practice – Research, where relevant

c. Code of Practice – Honours, where relevant

d. Student Charter

e. Code of Practice – Student Professional Experience, where relevant

f. Academic Integrity and Plagiarism Policy

g. Student Academic Consideration Policy

h. Course Progress Policy

i. Graduate Qualities Policy

j. Academic Complaints Policy (Coursework and Honours Students)

k. Policy and Guidelines on Non-Discriminatory Language Practice and Presentation

l. Workplace Health and Safety, where relevant

m. Intellectual Property Policy

n. IP Student Assessment of Intellectual Property Policy, where relevant

o. Policy on Ethical Objection by Students to the Use of Animal and Animal Products in Coursework Subjects, where relevant

p. Human Research Ethics Guidelines, where relevant

q. Animal Research Guidelines, where relevant
r. Student Conduct Rules and accompanying Procedures or Research Misconduct Policy for research students

Student Support Services and Facilities
Students can access information on student support services and facilities at the following link. This includes information on “Academic Support”, “Starting at University”, “Help at University” as well as information and support on “Career’s and Jobs”. http://www.uow.edu.au/student/services/index.html

Student Etiquette
Guidelines on the use of email to contact teaching staff, mobile phone use in class and information on the university guide to eLearning ‘Netiquette’ can be found at http://www.uow.edu.au/student/elearning/netiquette/index.html

Version Control Table

<table>
<thead>
<tr>
<th>Version Control</th>
<th>Release Date</th>
<th>Author/Reviewer</th>
<th>Approved By</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20160115</td>
<td>A/Prof Laurie Chisolm – Subject Coordinator</td>
<td>Sonia Losinno – ADE Nominee</td>
<td>FINAL EESC203 Autumn 2016 Subject Outline</td>
</tr>
</tbody>
</table>