

# Climate Change

|                           |   |
|---------------------------|---|
| <b>Year and Campus:</b>   | 2014  |
| <b>Coordinator:</b>       | Associate Professor Stefan Arndt, Department of Forest Ecosystem Science, MSLE  |
| <b>Contact:</b>           | <p><b>Office for Environmental Programs</b><br/>Ground Floor, Walter Boas Building (building 163)</p> <p><i>Enquiries</i><br/>Phone: 13 MELB (13 6352)<br/>Email: <a href="mailto:13MELB@unimelb.edu.au">13MELB@unimelb.edu.au</a> (<a href="mailto:13MELB@unimelb.edu.au">mailto:13MELB@unimelb.edu.au</a>)</p>  |
| <b>Overview:</b>          | <p>Climate Change is offered as a major field of study in the Master of Environment degree.</p> <p>Climate change mitigation and adaptation are increasingly being integrated into business management, government policy and technology design, requiring expertise in a range of fields including international conventions, strategic government and business policy, climate science, energy technology, economic analysis and management. Effective solutions therefore require a new generation of policymakers, managers and scientists equipped with a multidisciplinary understanding of climate change issues.</p> <p>The Climate Change major is ideal for students seeking an interdisciplinary perspective on climate change, for work in policy-making or business advisory roles. Graduates will be well-placed to offer leadership through a solid understanding of: theoretical and practical applications of policy and science; technological limits, potentials and risks; and the value of addressing a wide-ranging global environmental issue from a trans-disciplinary perspective.</p> <p>Additionally, this major presents an opportunity for students to establish extensive networks with fellow climate change professionals across a broad range of industries, sectors and fields of endeavour.</p> <p>Graduates of this major can expect to find employment in State and Federal Government authorities, environmental consulting companies, business advisory and strategic policymaking positions worldwide</p>   |
| <b>Learning Outcomes:</b> | <p>Students who complete the Master of Environment will have:</p> <ul style="list-style-type: none"> <li># Knowledge to undertake professional practice in environment or sustainability, including: <ul style="list-style-type: none"> <li># Specialised knowledge in an environmental discipline or field of practice, including knowledge of recent developments in this field</li> <li># Knowledge of the cross-disciplinary nature of environmental issues and professional practice to promote sustainable futures</li> <li># Knowledge of research principles and methods applicable to specialist field of environmental inquiry</li> </ul> </li> <li># Skills for collaborative and creative problem solving in environmental practice, including: <ul style="list-style-type: none"> <li># Ability to critically analyse and synthesise environmental knowledge</li> <li># Ability to envision environmental change and propose pathways to realise this change</li> <li># Ability to communicate complex environmental knowledge and research effectively to a range of audiences</li> <li># Ability to work effectively in cross-disciplinary teams</li> <li># Technical skills for professional practice and research in field of specialisation</li> </ul> </li> <li># Demonstrated capacity to:</li> </ul> <p>The Climate Change major will provide a pathway to further study and prepare students for entry to middle and upper management positions by:</p> <ul style="list-style-type: none"> <li># Developing knowledge, skills, understanding and competence in the area of climate change science and policy tools;</li> <li># Developing a thorough approach to climate change through an understanding of the biological, economic, social and environmental factors surrounding climate change issues both within Australia and internationally;</li> <li># Increasing knowledge and analytical capabilities appropriate to climate change;</li> <li># Developing competence in the design, conduct and analysis of research questions and experimental work, particularly for those students interested in pursuing a research career; and</li> </ul> |

|   | # Extending scholarly and critical attitudes in climate change studies.   |                |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
|---|---|----------------|----------------------------|----------------|--|---------------|-------|---|------------|-------|---------|----------------------------|----------------|---|-----------------|-------|---------------------------|------------|-------|--|------------|-------|--|------|-------|------------------------------|-----|-------|---------------------------------------|------------|-------|---------|----------------------------|----------------|--|------------------------|-------|---|------------------------|----|--|------------------------|-------|---|------------------------|----|---|------------------------|----|--|------------------------|----|--|------------------------|-------|--|------------------------|----|--|------------------------|----|
| <b>Structure &amp; Available Subjects:</b>            | <p>Students completing a Climate Change specialisation in the Master of Environment will complete two core subjects and at least three subjects from a list of compulsory specialisation subjects. Students will complete at least 25 points of subjects selected from a list of compulsory 'capstone' subjects which will enable students to plan and execute a substantial project in an area related to climate change. Students will choose the remainder of subjects from an approved subject list in consultation with the coordinator of the Climate Change stream. A full list of Climate Change stream subjects can be found here:</p> <p><a href="http://environment.unimelb.edu.au/courses/streams/climate_change">http://environment.unimelb.edu.au/courses/streams/climate_change</a> (<a href="http://environment.unimelb.edu.au/courses/streams/climate_change">http://environment.unimelb.edu.au/courses/streams/climate_change</a>)</p>  |                |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| <b>Subject Options:</b>                               | <p><b>Core Subjects</b></p> <p>Students must complete the following core subjects:</p> <table border="1" data-bbox="387 611 1485 815"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MULT90004 Sustainability Governance and Leadership</td> <td>March, August</td> <td>12.50</td> </tr> <tr> <td>MULT90005 Interdisciplinarity and the Environment</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p><b>Compulsory Specialisation Subjects</b></p> <p>Students must complete three subjects from the following list of compulsory specialisation subjects:</p> <table border="1" data-bbox="387 927 1485 1359"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>AGRI90057 Climate Change: Agric. Impacts &amp; Adaptation</td> <td>June, September</td> <td>12.50</td> </tr> <tr> <td>ATOC90002 Climate Affairs</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>ENST90004 Climate Change Politics and Policy</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>FRST90032 Forests, Carbon and Climate Change</td> <td>June</td> <td>12.50</td> </tr> <tr> <td>LAWS70293 Climate Change Law</td> <td>May</td> <td>12.50</td> </tr> <tr> <td>EVSC90017 Global Environmental Change</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p><b>Compulsory Capstone Experience</b></p> <p>Students must complete 25 points from the following Capstone experience subjects:</p> <table border="1" data-bbox="387 1442 1485 2040"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENST90006 Environmental Research Review (12.5)</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>ENST90007 Environmental Research Project (25)</td> <td>Semester 1, Semester 2</td> <td>25</td> </tr> <tr> <td>ENST90024 Environmental Research Project - 25 Long</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>ENST90016 Environmental Research Project (50)</td> <td>Semester 1, Semester 2</td> <td>50</td> </tr> <tr> <td>ENST70001 Environmental Research Proj (50 Long)</td> <td>Semester 1, Semester 2</td> <td>25</td> </tr> <tr> <td>ENST90025 Environmental Industry Research (25)</td> <td>Semester 1, Semester 2</td> <td>25</td> </tr> <tr> <td>ENST90026 Environmental Industry Research: 25 Long</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>ENST90020 Environmental Industry Research (50)</td> <td>Semester 1, Semester 2</td> <td>50</td> </tr> <tr> <td>ENST70002 Environmental Industry Research: 50 Long</td> <td>Semester 1, Semester 2</td> <td>25</td> </tr> </tbody> </table> | Subject        | Study Period Commencement: | Credit Points: | MULT90004 Sustainability Governance and Leadership | March, August | 12.50 | MULT90005 Interdisciplinarity and the Environment | Semester 2 | 12.50 | Subject | Study Period Commencement: | Credit Points: | AGRI90057 Climate Change: Agric. Impacts & Adaptation | June, September | 12.50 | ATOC90002 Climate Affairs | Semester 2 | 12.50 | ENST90004 Climate Change Politics and Policy | Semester 2 | 12.50 | FRST90032 Forests, Carbon and Climate Change | June | 12.50 | LAWS70293 Climate Change Law | May | 12.50 | EVSC90017 Global Environmental Change | Semester 1 | 12.50 | Subject | Study Period Commencement: | Credit Points: | ENST90006 Environmental Research Review (12.5) | Semester 1, Semester 2 | 12.50 | ENST90007 Environmental Research Project (25) | Semester 1, Semester 2 | 25 | ENST90024 Environmental Research Project - 25 Long | Semester 1, Semester 2 | 12.50 | ENST90016 Environmental Research Project (50) | Semester 1, Semester 2 | 50 | ENST70001 Environmental Research Proj (50 Long) | Semester 1, Semester 2 | 25 | ENST90025 Environmental Industry Research (25) | Semester 1, Semester 2 | 25 | ENST90026 Environmental Industry Research: 25 Long | Semester 1, Semester 2 | 12.50 | ENST90020 Environmental Industry Research (50) | Semester 1, Semester 2 | 50 | ENST70002 Environmental Industry Research: 50 Long | Semester 1, Semester 2 | 25 |
| Subject   | Study Period Commencement:  | Credit Points: |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| MULT90004 Sustainability Governance and Leadership    | March, August   | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| MULT90005 Interdisciplinarity and the Environment     | Semester 2  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| Subject   | Study Period Commencement:  | Credit Points: |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| AGRI90057 Climate Change: Agric. Impacts & Adaptation | June, September   | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ATOC90002 Climate Affairs                             | Semester 2  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90004 Climate Change Politics and Policy          | Semester 2  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| FRST90032 Forests, Carbon and Climate Change          | June  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| LAWS70293 Climate Change Law                          | May   | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| EVSC90017 Global Environmental Change                 | Semester 1  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| Subject   | Study Period Commencement:  | Credit Points: |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90006 Environmental Research Review (12.5)        | Semester 1, Semester 2  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90007 Environmental Research Project (25)         | Semester 1, Semester 2  | 25             |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90024 Environmental Research Project - 25 Long    | Semester 1, Semester 2  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90016 Environmental Research Project (50)         | Semester 1, Semester 2  | 50             |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST70001 Environmental Research Proj (50 Long)       | Semester 1, Semester 2  | 25             |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90025 Environmental Industry Research (25)        | Semester 1, Semester 2  | 25             |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90026 Environmental Industry Research: 25 Long    | Semester 1, Semester 2  | 12.50          |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST90020 Environmental Industry Research (50)        | Semester 1, Semester 2  | 50             |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |
| ENST70002 Environmental Industry Research: 50 Long    | Semester 1, Semester 2  | 25             |                            |                |  |               |       |   |            |       |         |                            |                |   |                 |       |                           |            |       |  |            |       |  |      |       |                              |     |       |                                       |            |       |         |                            |                |  |                        |       |   |                        |    |  |                        |       |   |                        |    |   |                        |    |  |                        |    |  |                        |       |  |                        |    |  |                        |    |

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| DEVT90002 Internship in Development               | January, Semester 1,<br>Semester 2     | 12.50 |
| DEVT90008 International Internship in Development | January, Semester 1,<br>Semester 2     | 25    |
| FRST90035 Forest Internship Project               | Year Long                              | 25    |
| AGRI90076 Internship for Land and Environment     | Summer Term, Semester<br>1, Semester 2 | 12.50 |

### Elective Subjects

Students should make up the balance of the award with electives chosen from the list below:

| Subject  | Study Period Commencement: | Credit Points: |
|--|----------------------------|----------------|
| ENEN90014 Sustainable Buildings                    | September                  | 12.50          |
| ECON90016 Environmental Economics and Strategy     | Semester 1                 | 12.50          |
| ENEN90005 Environmental Management ISO 14000       | Semester 2                 | 12.50          |
| ENEN90011 Energy Efficiency Technology             | Semester 2                 | 12.50          |
| ENEN90027 Energy for Sustainable Development       | Not offered 2014           | 12.50          |
| ENST90002 Social Impact Assessment and Evaluation  | Semester 2                 | 12.50          |
| ENST90005 Environmental Policy                     | Semester 2                 | 12.50          |
| ENST90017 Environmental Policy Instruments         | Semester 2                 | 12.50          |
| EVSC90001 Global Environment and Sustainability    | February                   | 12.50          |
| EVSC90014 Environmental Risk Assessment            | November                   | 12.50          |
| EVSC90015 Environmental Impact Assessment          | Semester 1                 | 12.50          |
| EVSC90016 Environmental Monitoring and Audit       | Semester 2                 | 12.50          |
| EVSC90020 Environmental Modelling                  | Semester 1                 | 12.50          |
| FRST90025 Bushfire & Climate                       | March                      | 12.50          |
| HPSC90010 Environment and Knowledge                | Not offered 2014           | 12.50          |
| LAWS70068 Environmental Law                        | September                  | 12.50          |
| NRMT40001 Emerging Issues in Land Resources        | Not offered 2014           | 12.50          |
| NRMT90014 Sustainable Landscapes                   | Semester 1                 | 12.50          |
| NRMT90017 Leadership                               | February                   | 12.50          |
| FRST90016 Trees in a Changing Climate              | November                   | 12.50          |
| DEVT90001 Project Management & Design              | March                      | 12.50          |
| POPH90230 Environmental Challenges & Global Health | June                       | 12.50          |
| HORT90039 Green Infrastructure for Liveable Cities | November                   | 12.50          |
| FRST90034 Ecological Restoration                   | September                  | 12.50          |
| EVSC90020 Environmental Modelling                  | Semester 1                 | 12.50          |

|                           |  |                        |       |
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|                           | EVSC90009 Problem Solving in Environmental Science | Semester 2             | 12.50 |
|                           | LAWS70219 International Environmental Law          | August                 | 12.50 |
|                           | GEOM90008 Foundations of Spatial Information       | Semester 1             | 12.50 |
|                           | FOOD90026 The Politics of Food                     | Semester 1, Semester 2 | 12.50 |
|                           | ENST90032 Contemporary Environmental Issues C      | Semester 1             | 12.50 |
| <b>Related Course(s):</b> | Master of Environment                              |                        |       |