

## NRMT90002 Management of Plant and Animal Invasions

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| <b>Credit Points:</b>                    | 12.5  |
| <b>Level:</b>                            | 9 (Graduate/Postgraduate)   |
| <b>Dates &amp; Locations:</b>            | 2016, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus.   |
| <b>Time Commitment:</b>                  | Contact Hours: Lectures 2 hrs/week; one practical of 3 hrs; Tutorials 2 hrs/5 per semester; Total Time Commitment: Contact Hours: Lectures 2 hrs/week; Practical 3 hrs; Tutorials 2 hrs/5 per semester. In addition, students will need to spend significant non-contact time researching and writing a major assignment (split into two parts); time will also be required to prepare a short oral presentation and a final one page report. Total Time Commitment: Not available  |
| <b>Prerequisites:</b>                    | Eligibility for postgraduate degree   |
| <b>Corequisites:</b>                     | None  |
| <b>Recommended Background Knowledge:</b> | None  |
| <b>Non Allowed Subjects:</b>             | None  |
| <b>Core Participation Requirements:</b>  | For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements for this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison website: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>  |
| <b>Coordinator:</b>                      | Prof Roger Cousens  |
| <b>Contact:</b>                          | <a href="mailto:rcousens@unimelb.edu.au">rcousens@unimelb.edu.au</a> ( <a href="mailto:rcousens@unimelb.edu.au">mailto:rcousens@unimelb.edu.au</a> )  |
| <b>Subject Overview:</b>                 | Invasions are natural ecological phenomena. Dispersing individuals encounter suitable habitat, establish, spread and evolve. In this way, species have radiated outwards from their origins, colonised distant offshore islands, and species have spread in response to changes in climate.<br><br>Human-induced invasions of plants, animals and diseases in modern times have dramatically altered the scales of time and distance over which invasions take place. Their impacts can be considerable, wiping out unique communities, endangering rare species, adding considerable costs to agriculture, horticulture and forestry, and having effects on the health, leisure and livelihoods of people. Tools such as pesticides and biological control can often be used to great effect, while for other invaders there are no obvious solutions. There may be unwanted side-effects of control methods on non-target species, they may adversely affect human health, and may cause considerable public concern. Integrated management strategies can be developed using ecological information about the species but these must be implemented in a real world that involves economics, politics, opinions and social interactions. |
| <b>Learning Outcomes:</b>                | In this subject we will explore the underlying principles of biological invasions, analyse their impacts, discuss in detail the various control methods and consider their possible side effects. Through developing a plan for a species of their choice, students learn to appreciate the interplay between science, technology, sociology and legislation in achieving successful management of invasive species.  |
| <b>Assessment:</b>                       | One 4000 word report (80%, submitted in two parts: mid-semester and end of semester), a management plan for an invasive species of the student's choice. 10 minutes oral presentation (15%) must be given towards the end of semester. One short report (300 words maximum, 5%) commenting on the 3 best plans presented by the rest of the class will also be due at the end of semester.  |

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| <b>Prescribed Texts:</b>                           | None  |
| <b>Breadth Options:</b>                            | This subject is not available as a breadth subject.   |
| <b>Fees Information:</b>                           | Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>   |
| <b>Generic Skills:</b>                             | On completion of this subject students should have: <ul style="list-style-type: none"> <li># skills in formulating and writing management plans;</li> <li># an ability to critically access different forms of information;</li> <li># an understanding of how management decisions must consider people and not just science</li> </ul>  |
| <b>Related Course(s):</b>                          | Graduate Certificate in Agricultural Sciences<br>Graduate Diploma in Agricultural Sciences<br>Graduate Diploma in Urban Horticulture<br>Master of Agricultural Science<br>Master of Animal Science<br>Master of Urban Horticulture<br>Postgraduate Diploma in Agricultural Science  |
| <b>Related Majors/Minors/<br/>Specialisations:</b> | 100 Point (A) Master of Agricultural Sciences<br>100 Point (B) Master of Agricultural Sciences<br>150 Point Master of Agricultural Sciences<br>200 Point Master of Agricultural Sciences<br>Bachelor of Environments (Honours) Landscape Management<br>Conservation and Restoration<br>Conservation and Restoration<br>Environmental Science<br>Environmental Science<br>Honours Program - Forest Science<br>Integrated Water Catchment Management<br>Integrated Water Catchment Management<br>Master of Science (Ecosystem Science) - Discipline Elective subjects<br>Tailored Specialisation<br>Tailored Specialisation |