## EVSC30002 Problem Solving in Environmental Science

| Credit Points:                       | 12.5  |                            |                   |
|--------------------------------------|---|----------------------------|-------------------|
| Level:                               | 3 (Undergraduate)   |                            |                   |
| Dates & Locations:                   | 2015, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus.   |                            |                   |
| Time Commitment:                     | Contact Hours: 2 x one hour lectures per week, and 18 hours of practicals/tutorials during the semester Total Time Commitment: Estimated total time commitment of 170 hours   |                            |                   |
| Prerequisites:                       |   |                            |                   |
|                                      | Subject   | Study Period Commencement: | Credit<br>Points: |
|                                      | EVSC30003 Environmental Risk Assessment   | Semester 1                 | 12.50             |
| Corequisites:                        | None  |                            |                   |
| Recommended<br>Background Knowledge: | A statistics subject is strongly recommended.   |                            |                   |
| Non Allowed Subjects:                | None  |                            |                   |
| Core Participation<br>Requirements:  | For the purposes of considering applications for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005) and Students Experiencing Academic Disadvantage Policy, this subject requires all students to actively and safely participate in practical work activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the Subject Coordinator and the Disability Liaison Unit. http://www.services.unimelb.edu.au/disability/                                 |                            |                   |
| Coordinator:                         | Dr Jan Carey, Prof Michael Keough   |                            |                   |
| Contact:                             | Email: <u>mjkeough@unimelb.edu.au</u> (mailto:mjkeough@unimelb.edu.au)<br>Email: janetmc@unimelb.edu.au (mailto:janetmc@unimelb.edu.au)   |                            |                   |
| Subject Overview:                    | The subject includes methods of hypothesis development, experimental design and testing in environmental impact assessment, design and analysis of sampling and monitoring programs and their subsequent analysis, and evaluating proposed solutions for their technical feasibility and risk.  |                            |                   |
| Learning Outcomes:                   | Students completing this subject should have an appreciation of environmental decision-making<br>and the role of scientists in that process, and should understand the methodologies used for<br>the assessment of human impacts on the natural environment. They should be familiar with the<br>statistical principles underlying the design of environmental impact assessment and monitoring,<br>and have experience in conducting and presenting the results of a multidisciplinary research<br>project in environmental impact assessment. |                            |                   |
| Assessment:                          | Written essay work totalling 3000 words due during the semester (30%); two 10-minute oral presentations during the semester (10% total); a 3-hour written examination in the examination period (60%).  |                            |                   |
| Prescribed Texts:                    | None  |                            |                   |
| Breadth Options:                     | This subject potentially can be taken as a breadth subject component for the following courses:<br># Bachelor of Arts (https://handbook.unimelb.edu.au/view/2015/B-ARTS)<br># Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2015/B-COM)  |                            |                   |

|  | <ul> <li># <u>Bachelor of Environments</u> (https://handbook.unimelb.edu.au/view/2015/B-ENVS)</li> <li># <u>Bachelor of Music</u> (https://handbook.unimelb.edu.au/view/2015/B-MUS)</li> </ul>  |  |
|--|---|--|
|  | You should visit <b>learn more about breadth subjects</b> (http://breadth.unimelb.edu.au/<br>breadth/info/index.html) and read the breadth requirements for your degree, and should<br>discuss your choice with your student adviser, before deciding on your subjects. |  |
| Fees Information:                          | Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees  |  |
| Notes:                                     | This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course.  |  |
| Related Majors/Minors/<br>Specialisations: | Environmental Science<br>Environmental Science major<br>Environments Discipline subjects<br>Science-credited subjects - new generation B-SCI and B-ENG.<br>Selective subjects for B-BMED  |  |