ENEN90028 Monitoring Environmental Impacts

| Credit Points: | 12.50 | | | |
|--------------------------------------|---|---|----------------------------|--|
| Level: | 9 (Graduate/Postgraduate) | | | |
| Dates & Locations: | 2010, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus. | | | |
| Time Commitment: | Contact Hours: Lecture plus practice classes each 10 hours/semester. 5 day field camp. Total 45 hours Total Time Commitment: 120 hours for the semester | | | |
| Prerequisites: | None | | | |
| Corequisites: | None | | | |
| Recommended Background Knowledge: | Completion of the following subject or equivalent will assist w Subject ENEN20002 Earth Processes for Engineering | vith learning in this subje Study Period Commencement: Semester 2 | Credit Points: 12.50 | |
| Non Allowed Subjects: | Credit points will not be given for either of the following subjects when taking this subject Subject Study Period Commencement: Credit | | | |
| | 421-325 Field Data Acquisition and Analysis | Not offered 2010 | Points: | |
| | OR | | | |
| | Subject | Study Period Commencement: | Credit Points: | |
| | 421-525 Field Data Acquisition and Analysis | Not offered 2010 | | |
| Core Participation Requirements: | For the purposes of considering requests 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 of 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 Unit website: http:// www.services.unimelb.edu.au/disability/ | | | |
| Coordinator: | Dr Michael Stewardson | | | |
| Contact: | Melbourne School of Engineering Ground Floor Old Engineering Building #173 The University of Melbourne VIC 3010 AUSTRALIA General telephone enquiries + 61 3 8344 6703 + 61 3 8344 6507 Facsimiles + 61 3 9349 2182 + 61 3 8344 7707 Email: eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au) | | | |
| Subject Overview: | The subject will consist of one field camp involving practical exercises in environmental monitoring and a semester long project to design an environmental monitoring program supported by weekly practice classes. # Component skills taught in this subject: # Conceptualising environmental responses # Evaluating existing evidence of causal links | | | |

| | # Selecting measurement techniques (considering scale issues) | |
|--------------------|---|--|
| | # Designing an environmental sampling program | |
| | # Statistical methods for detecting environmental variations | |
| | # Attributing environmental variations | |
| Objectives: | At the conclusion of this subject students should be able to: # Identify the practical challenges of conducting environmental observations. | |
| | # Design an environmental monitoring program to meet the requirements of a client, includir conceptualising the environmental system under investigation # Select environmental sensors, sampling theory and field techniques | |
| | # Use and interpret environmental measurements | |
| | # Use a range of environmental instrumentation | |
| | # Demonstrate team and communication skills through the participation in a major group project | |
| Assessment: | Reports, totaling 3000 words, prepared in parts continuously over the semester $(25\%)2000$ word report due mid-semester $(15\%)4 \times 15$ minute tests distributed throughout the semester (15%) Field camp activities in mid-semester break (15%) On-line discussions throughout semester (5%) Reflective on-line journal, maintained during semester $(5\%)2 \times 10$ minute oral presentations, one at mid-semester the other at end of the semester (20%) Participation in the field camp is a hurdle | |
| Prescribed Texts: | None | |
| Breadth Options: | This subject is not available as a breadth subject. | |
| Fees Information: | Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees | |
| Generic Skills: | # Ability to undertake problem identification, formulation, and solution | |
| | $_{\#}$ Ability to utilise a systems approach to complex problems and to design and operational | |
| | performance Ability to communicate effectively, with the engineering team and with the community at | |
| | a large | |
| | # Ability to manage information and documentation | |
| | # Capacity for creativity and innovation | |
| | # Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member | |
| Notes: | Field trip will have associated food and accommodation costs | |
| Related Course(s): | Bachelor of Engineering (Environmental) and Bachelor of Arts Bachelor of Engineering (Environmental) and Bachelor of Commerce Bachelor of Engineering (Environmental) and Bachelor of Laws Master of Engineering Management Master of Engineering Management Master of Engineering Project Management Master of Engineering Project Management Master of Environmental Engineering Master of Environmental Engineering Master of Environmental Engineering Master of Water Resource Management Master of Water Resource Management | |