

EDUC90433 Learning Area Chemistry 1

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: February, Parkville - Taught on campus. Parkville, On Campus
Time Commitment:	Contact Hours: 36 hours Total Time Commitment: 125 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	Attendance at all classes (tutorial/seminars/practical classes/lectures/labs) is obligatory. Failure to attend 80% of classes will normally result in failure in the subject.
Coordinator:	Mr Mark Learmonth
Contact:	Education Student Centre
Subject Overview:	<p>This subject explores the rationale, methodology and teaching techniques relevant to the teaching of VCE Chemistry, especially VCE Units 1 and 3. General teaching techniques of Chemistry are also emphasized in junior Science, including laboratory work, demonstrations and safety in the use of chemicals and equipment. The subject covers practical and theoretical aspects of planning engaging lessons and units of work in VCE Chemistry. Chemistry has conceptual complexities, like the Mole, which baffle secondary students. Very small scale of the particles and forces have to be used to explain macroscopic phenomena. An introduction to assessment in Chemistry will also be taught in this subject.</p> <p>A combined science component, shared with the other science methods, has a focus on the design and management of the general science curriculum and teaching in years 7-10. This is taught partly with pupils in small groups in school classrooms, special topic workshops, and excursions. Teacher candidates will be introduced in practice to the use of research on children's naïve conceptions in various science topics, principles of constructivist teaching, socially situated and peer-based learning, lesson planning, laboratory and classroom management and laboratory safety.</p>
Objectives:	<p>On completion of this subject, teacher candidates will be able to:</p> <ul style="list-style-type: none"> # Be skilled teachers of chemistry with the theoretical frameworks and practical ability to produce effective learning for a wide range of students, including in junior science, # Display a solid current knowledge of the chemical sciences, and educational contexts and how they interact in effective pedagogy, # Understand the links between effective planning teaching and evaluation in chemistry. # Use a variety of technologies in the classroom to assist learning in chemistry classes # Apply chemical understandings to familiar and new contexts, analyse issues and implications relating to scientific and technological developments and analyse and evaluate the reliability of information and opinions presented in the public domain.
Assessment:	There are 3 assessment tasks for this subject. Review and evaluation of teaching Chemistry (1350 words) due mid semester (33%) Lesson plans on Chemistry (1350 words) due end of semester (33%) EITHER a unit box on junior science OR a set of workshop productions (equivalent to 1300 words) due end of semester (34%) NOTE: Teacher candidates doing one LAS Science subject will do one of these tasks. Teacher candidates doing 2 LAS Science subjects will do both, one in each of their LAS subjects.

Prescribed Texts:	VCAA(2006) Victorian Essential Learning Standards VCAA, VCE Chemistry Study Design, VCAA, 2005
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:	On completion of this subject, teacher candidates will have the knowledge, skills and understanding to enable them to: <ul style="list-style-type: none"># Be skilled communicators who can effectively articulate and justify their practices as knowledgeable agents of change# Be flexible and able to adapt to change through knowing how to learn.# Understand the significance of developing their practice on the basis of research evidence.# Work in teams with skills in cooperation, communication and negotiation.# Be independent of mind, responsible, resilient, self-regulating# Have a conscious personal and social values base.
Related Course(s):	Master of Teaching (Secondary) Master of Teaching (Secondary)