EDUC90434 Learning Area Chemistry 2

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 Total Time Commitment: 170 hours
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
EDUC90433 Learning Area Chemistry 1	February	12.50

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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 Overview, Learning Outcomes 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 website: http://www.services.unimelb.edu.au/disability
Coordinator:	Ms Ann Osman
Contact:	**Contact Us (https://enquiry.app.unimelb.edu.au/?cc=MGSE-ALL&fn=MGSE)** Call: 13 MELB (13 6352)
Subject Overview:	This subject explores the rationale, methodology and teaching techniques relevant to the teaching of VCE Chemistry, with a special emphasis on Units 2 and 4 of the VCE study. Some of the general teaching techniques of Chemistry are also emphasized in junior science, including laboratory work, demonstrations and safety in the use of chemicals and equipment, In this subject, we focus on quantitative Chemistry, the various types of chemical calculations, definitional problems, chemical equation-writing and actual measured quantities in practical activities. Another detailed focus will be on assessment in Chemistry, both as prescribed by VCAA, and informal and alternate assessment opportunities. In combined science, shared with the other science methods, teacher candidates will explore pedagogical strategies to engage science learners in the middle years of secondary school. ICT is treated as an integral part of contemporary science teaching practice, where appropriate it is used to support and enhance conceptual understanding and teaching practice.
Learning Outcomes:	On completion of this subject, teacher candidates will be able to: # Show theoretical frameworks and practical ability to produce effective learning for a wide range of school students, including in junior science; # Display a solid knowledge of Chemistry, 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;

	# Demonstrate the knowledge, skills and abilities to use ICT to support student learning and professional practice. The subject covers a range of the National Professional Standards for Teachers (for Graduate Teachers). In particular, the subject will contribute to students attaining the following standards: 2.1 Content and teaching strategies of the teaching area 3.3 Use teaching strategies 3.4 Select and use resources 3.5 Use effective classroom communication 4.1 Support student participation 4.4 Maintain student safety 5.1 Assess student learning
Assessment:	There are 3 assessment tasks for this subject 10 minute presentation of a Chemistry demonstration (including 5 minutes discussion) of VCE Chemistry relevant to units 2 or 4, plus an 800-word written description. Equivalent 1400 words, due early-mid semester, 34% Preparation and design of a Chemistry teaching program, equivalent 1300 words. Due late semester, 33% Either a project exploring inquiry-based teaching strategies (equivalent 1300 words) Due mid-semester OR due the end of semester 33% OR a practice-based reflective task (equivalent 1300 words) Due mid-semester OR due the end of semester 33% NOTE: Teacher candidates doing one LA science subject will submit the inquiry-based teaching task while those doing two LA science subjects will submit both assessment tasks listed in dot point 3, completing one for each of their LA science subjects. Hurdle requirement: Participation in fortnightly online activities throughout semester. 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.
Prescribed Texts:	VCAA, VCE Chemistry Study Design, VCAA, 2005 (extended till 2015)
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 the course, teacher candidates will have the knowledge, skills and understanding to enable them to: # Understand Secondary education as part of a spectrum of learning and development, linked to primary schooling and to post-schooling outcomes of further study and/or employment. # Develop in-depth knowledge of the complexity and diversity of primary students' learning and development. # Be expert in the disciplines they teach and committed to continual updating of their discipline knowledge. # Be able to intelligently and creatively plan, implement and critique mandated curriculum. # Be able to use data to identify and address the learning needs and capacities of individual students. # Be able to intentionally draw on a range of teaching practices to extend individual student's learning and development. # Shape and deliver responsive and inclusive curricula. # Be a self-reflective teacher who can work constructively and innovatively through relationships with parents, colleagues and the community across a range of contexts.
Related Course(s):	Master of Teaching (Secondary) Master of Teaching (Secondary)