School of Education

EDST6925
Chemistry Method 1

Term 1, 2019

1. LOCATION

Faculty of Arts and Social Sciences
School of Education
EDST6925 Chemistry Method 1 (6 units of credit)
Term 1 2019

2. STAFF CONTACT DETAILS

Course Coordinator:	Oriana Miano
Email:	o.miano@unsw.edu.au
Availability:	Thursday 7:30 – 7:45 pm
Tutor:	Jennifer Ming
Email:	j.ming@unsw.edu.au
Availability:	Thursday 7:30 – 7:45 pm
Tutor:	Rana Kaddour
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Availability:	Thursday 7:30 – 7:45 pm

3. COURSE DETAILS

Course Name	Chemistry Method 1
Credit Points	6 units of credit (uoc)
Workload	Includes 150 hours including class contact hours, readings, class preparation, assessment, follow up activities, etc.
Schedule	http://classutil.unsw.edu.au/EDST_T1.html

SUMMARY OF COURSE

This initial teacher education course is designed to develop appropriate pedagogies for teaching Chemistry, as well as offering an insight into the principles and practices for learning Chemistry within the broader secondary Science continuum. Initial teacher education students will develop skills in planning and teaching lessons, contextualising Chemistry within the broader school curriculum, managing practical work in science classrooms and integrating ICT resources into lessons. Important issues such as student prior learning, assessment, student differences and safety are also considered. Initial teacher education students will critically evaluate models of pedagogy and the features of

STUDENT LEARNING OUTCOMES

Outcome
1

4. RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH

Lectures, tutorials and assignments will cover a variety of approaches to teaching and learning in the Chemistry classroom. Emphasis will be placed on the relationship between the nature and practice of Chemistry, the role and value of Chemistry in society and models of pedagogy for teaching and assessing in Chemistry. A particular focus will be on strategies that can promote student engagement and achievement in Chemistry and common student misconceptions.

Student-centered activities will form the basis of the course. These activities will draw on the prior discipline knowledge of the students and will allow them to engage in relevant and challenging experiences that mirror those they will be expected to design for the range of secondary students they will later teach.

5. TEACHING STRATEGIES

Explicit teaching to foster an understanding of students' different approaches to learning and the use of a range of teaching strategies to foster interest and support learning
Small group cooperative learning to develop teamwork in an educational context and to demonstrate the use of group structures to address teaching and learning goals
Structured occasions for reflection on learning to allow students to reflect critically on and improve teaching practice
Extensive opportunities for whole group and small group dialogue and discussion, allowing students the opportunity to demonstrate their capacity to communicate and liaise with the

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6. COURSE CONTENT AND STRUCTURE

Module	Lecture	Tutorial
1 18 Feb	Introduction to course structure and requirements Developing contexts: (1) the value of Chemistry; (2) making Chemistry relevant in the broader school curriculum; and (3) incorporating the nature of scientific thinking, problem-solving techniques, planning, conducting and communicating results of investigations How Stage 6 students learn Chemistry	Place of Chemistry across the continuum of learning in Science K-12 Addressing stereotypes in relation to studying Chemistry Research on how students learn Chemistry
2 25 Feb	Deconstructing the Stage 6 Chemistry Syllabus: structure, requirements and associated documents	Strategies for teaching Chemistry in Stage 6

8 8 Apr	Depth Studies: individual versus collaborative projects; presenting research/fieldwork reports	Strategies to improve literacy and numeracy capabilities in Stage 6 Chemistry **Microteaching**
Teaching Break		
9 29 Apr	Planning for mixed ability classes Planning for differentiation The pedagogy and organisational needs for group work	Strategies for differentiating subject content within Stage 6 Self and peer assessment
10 6 May	Preparing for Professional Experience Organisational strategies for teaching	Becoming a reflective teacher through the feedback cycle Completing myExperience feedback
Professional Experience 1		

8. ASSESSMENT

Task 2 UNIT OF WORK FOR STAGE 6 CHEMISTRY

Prepare an outline for a unit of work for a Stage 6 class. The unit of work should cover the first five lessons, which are 80 minutes each; however, you are not preparing full lesson plans.

You must write a rationale for the unit (600-800 words) in which you:

- provide a brief outline of the school and class context
- state precisely what you want the students to learn and why it is important
- describe and justify your choice of context to suit the needs and abilities of this class
- justify your teaching strategies by referring to readings, research and material presented in lectures and the Quality Teaching framework
- demonstrate how differentiation will support a diverse range of learners
- describe the prior knowledge students have to begin this unit and discuss how you would assess and build on this prior knowledge.

The unit outline should be in a standard format that will be explained and investigated during lectures and tutorials. You will receive a **template** for the unit outline which you must use.

Your unit of work must have an embedded context and employ a logically sequenced series of lesson outlines, utilising a **variety of teaching strategies**. There should be potential for student engagement with the material taught.

Include:

- syllabus content statements for each lesson
- a description of the activities in each lesson
- one full activity for formative assessment (not an essay)
- one ICT-based activity (not watching a video or PowerPoint presentation)
- one group-work task with a focus on literacy/numeracy (not a mind-map)
- one incursion/excursion/performance/practical activity
- outlines only for the other teaching materials required

The assessment task is to be converted to a PDF with the student name in the title of the file and submitted via Moodle.

NB. ALL OUTCOMES AND CONTENT STATEMENTS MUST BE WRITTEN AS FULL STATEMENTS, ACCOMPANIED BY THEIR IDENTIFYING NUMBER.

UNSW SCHOOL OF EDUCATION
FEEDBACK SHEET
EDST6925 CHEMISTRY METHOD 1

Student Name: Student No:

Task 1 – Lesson Plan, Stage 6

SPECIFIC CRITERIA	(-) ——————➤ (+)

UNSW SCHOOL OF EDUCATION
FEEDBACK SHEET
EDST692

Chemistry
Microteaching Feedback Form for Pre-service Teacher

STUDENT TEACHER			
Name:			Date:
Details			
Method		Topic/level	
Standards			**Comments**