



School of Education

EDST6925

Chemistry Method 1

Term 1 2021

Contents

1.

STUDENT LEARNING OUTCOMES

Outcome		Assessment/s
1	Identify foundational aspects and structure of the NSW <i>Chemistry Stage 6 Syllabus</i> and the depth of subject knowledge required to implement the syllabus	1,2
2	Evaluate how student characteristics affect learning and evaluate implications for teaching students with different characteristics and from diverse backgrounds	1
3	Use a range of strategies to plan and teach effective lessons to engage all students, address relevant syllabus outcomes and ensure a safe learning environment	1,3
4	Plan teaching strategies which effectively communicate scientific thinking and	

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 can promote student engagement

6.

Additional readings

- Anstey, M. & Bull, G. (2006) *Teaching and learning multiliteracies: Changing times, changing literacies*. Curriculum Press, Melbourne.
- Attwood, B. (2005), *Telling the truth about Aboriginal history*. All and Unwin, Crows Nest.
- Bryson, B. (2004) A Short History of Nearly Everything, Black Swan, London**
- Finger, G., Russell, G., Jamieson-Proctor, R. & Russell, N. (2006) *Transforming Learning with ICT Making IT Happen*. Pearson Australia
- Gibbons, P (2002) *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom*. Portsmouth, Heinemann
- Hazzard, J. (2004) *The Art of Teaching Science: Inquiry and Innovation in Middle School and High School*
- Henderson, R. (2012). *Teaching Literacies. Pedagogies and Diversity in the Middle Years*, Oxford University Press, Australia
- Hyde, M., Carpenter, L. & Conway, R. (2010). *Diversity and Inclusion in Australian Schools*. Oxford University Press, Australia
- Martin, K. (2008). The intersection of Aboriginal knowledges, Aboriginal literacies and new learning pedagogy for Aboriginal students. In Healy, A (Ed.) *Multiliteracies and diversity in education: New pedagogies for expanding landscapes* pp 59-81. Oxford University Press, Melbourne.
- Price, K (2012), *Aboriginal and Torres Strait Islander Education: An Introduction for the Teaching Profession*. Cambridge University Press

Recommended websites

NESA

<http://syllabus.nesa.nsw.edu.au/science/>

Science Teachers Association of NSW

<http://www.stansw.asn.au>

8. ASSESSMENT

Assessment Task	Length	Weight	Student Learning Outcomes Assessed	Australian Professional Standards Assessed	National Priority Area Elaborations Assessed	Due Date
Assessment Task 1: Lesson plan	c. 2000 words	40%	1-5	1.1.1, 1.2.1, 1.3.1, 2.1.1, 2.2.1, 2.3.1, 2.5.1, 2.6.1, 3.1.1, 3.3.1, 3.4.1, 3.5.1, 4.2.1, 4.4.1	A. 4, 7 C. 1, 3, 4, 5 D. 1,3, 4, 5, 8, 9,	

Assessment Details

Assessment Task 1: Lesson plan

Plan and design one 60-minute lesson for a Year 11 class. The lesson plan must follow a standard SED format and be presented using the template provided.

Plan your lesson for a class in a comprehensive high school which would typically include EAL/D students, Indigenous students and students with various religious and cultural backgrounds. Some students may have low levels of literacy. Differentiation strategies to cater for some students are therefore required. Appropriate differentiation strategies are scaffolding, group work and/or an alternative task or mode of presentation.

1. Write a rationale for your lesson plan. Your rationale should address the questions: What do I want the students to learn? Why is it important? What strategies will I use? What assessment for learning strategies will I use to monitor progress?
2. Prepare the lesson plan to demonstrate how you will use appropriate structure, activities, strategies and formative assessment to develop understanding of the material.

Make sure you:

Assessment Task 2: Unit of work, Year 11 Chemistry

Prepare an outline for a unit of work for a Year 11 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)
- x one incursion/excursion/performance/practical activity
- outlines only for the other teaching materials required

The assessment task is to be converted to a Practical

HURDLE REQUIREMENT

ASSESSMENT TASK 3: MICROTEACHING

Microteaching is the planning, presentation and evaluation of a lesson over a shortened period of time (a 10-minute mini-lesson). It is a critical aspect of method as it provides students with the opportunity to demonstrate key competencies that must be achieved before student teachers are permitted to undertake Profesrmuor

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FEEDBACK SHEET
EDST6925 CHEMISTRY METHOD 1

Student Name:

Assessment Task 1: **Lesson plan, Year 11**

Student No.:

SPECIFIC CRITERIA

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FEEDBACK SHEET
EDST6925 CHEMISTRY METHOD 1

Student Name:

Assessment Task 2: **Unit of work, Year 11 Chemistry**

Student No.:

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