

Unit Outline (Higher Education)

Institute / School: Institute of Education, Arts & Community

Unit Title: Senior Science Curriculum 2

Unit ID: EDDDE3118

Credit Points: 15.00

Prerequisite(s): (EDBED3038 or EDDDE3018)

Co-requisite(s): Nil

Exclusion(s): Nil

ASCED: 070301

Description of the Unit:

This unit is designed to follow on from Senior Science Curriculum 1 focusing on curriculum and pedagogy in the Senior Science specialist teaching area for undergraduate Pre-Service Teachers. Pre-service teachers will develop confidence and competence in teaching Physics, Chemistry, Environmental Science, or Biology at VCE level. They will develop skills in course and unit planning, pedagogy, assessment and reporting and will further develop their knowledge of the field of Science as it relates to education.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

Course Level:

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	■	■	■	■	■	■
Intermediate	■	■	■	■	■	■
Advanced	■	■	✓	■	■	■

Learning Outcomes:

Knowledge:

- K1.** Articulate a sound knowledge of the VCE Study Designs in Biology, Chemistry, Physics or Environmental Science particularly in Units 2 and 4.
- K2.** Display a cohesive knowledge of the appropriate Biological, Chemical, Physical or Environmental science, and how they interact in effective teaching.
- K3.** Understand the rationale, methodology and teaching techniques relevant to VCE Biology, Chemistry, Physics or Environmental Science.
- K4.** Identify and examine the links between effective planning, teaching, and assessment areas, specifically School Assessed Coursework in Unit 4.
- K5.** Develop and trial moderation practices appropriate for VCE Biology, Chemistry, Physics or Environmental Science.

Skills:

- S1.** Devise valid methods for assessment in VCE Units 2 and 4, in line with VCE guidelines for Biology, Chemistry, Physics or Environmental Science.
- S2.** Trial and evaluate teaching approaches for Biology, Chemistry, Physics or Environmental Science using theoretical frameworks and practical ability to produce effective learning for a wide range of students.
- S3.** Select and use a variety of technologies in the Senior Science classroom in order to assist learning.
- S4.** Design, implement, assess and report on School Assessed Coursework in VCE Units 3 and 4.
- S5.** Communicate effectively and articulate and justify decisions related to practice.

Application of knowledge and skills:

- A1.** Develop teaching skills and learning sequences for VCE units 3 and 4 senior science.
- A2.** Develop and moderate a School-Assessed Coursework (SAC) task for VCE Unit 4.

Unit Content:

- The Victorian Certificate of Education and the specific structure and content in VCE Units 1, 2, 3 and 4 in Biology, Chemistry, Physics or Environmental Science with a particular focus on understanding concepts in Units 2 and 4.
- Discussion of methodology and teaching strategies in VCE Biology, Chemistry, Physics or Environmental Science.
- Appreciation of the strategies for conducting safe and effective scientific practical activities at the VCE level.
- Development of teaching strategies for supporting student-designed scientific investigations at the VCE level. Understanding School Assessed Coursework requirements and

design of assessment for Unit 4 Further consideration of general issues of the assessment system at VCE level.

- Understanding and implementing moderation practices for School Assessed Coursework for Unit 4.
- Preparing students with a range of abilities for examinations in VCE Biology, Chemistry, Physics or

Environmental Science.

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, K4, S1, S2, S3, S4, S5, A1	Plan the safe and effective teaching of practical skills related to VCE Units 3 & 4 in Biology, Chemistry, Physics or Environmental Science, including designing lesson plans for practical lessons and documenting teaching strategies related to student-designed scientific investigations.	Teaching Performance and Planning	40-60%
K1, K2, K3, K5, S1, S4, S5, A2	Plan School Assessed Coursework tasks for Unit 4 in VCE Science with consideration given to the VCAA SAC requirements, and the curriculum, and a personal reflection on issues related to assessment in VCE. Moderate with peers.	Assessment Design	40-60%

Adopted Reference Style:

APA ()

 Refer to the [library website](#) for more information

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