Unit Outline (Higher Education)

Institute / School:	Institute of Education, Arts & Community
Unit Title:	Primary Science Education
Unit ID:	EDMAS6049
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	(EDMAS6043)
ASCED:	070103

Description of the Unit:

This unit is designed to examine key theoretical and pedagogical perspectives and issues in the teaching of science and technology with children, with emphasis on developing children`s skills of working scientifically, designing and making products. Students are introduced to a range of current curriculum documents and a variety of teaching strategies used in schools including lesson and unit planning, implementing and enacting curriculum, monitoring and reflecting upon learning and reporting. The unit addresses important conceptual ideas and processes about embedding science and technology into classroom learning, understanding science as a human endeavour and the differences in learning progressions in science and technology.

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. Recognise key theoretical, philosophical and pedagogical perspectives for teaching science and technologies (Design and Technologies; Digital Technologies).

K2. Examine a range of cross-curriculum documents and resources to develop an integrated unit of work which incorporates science and technologies (Design and Technologies; Digital Technologies), and links to cross-curricular priorities and general capabilities in the current curriculum.

K3. Engage students in inquiry learning that focuses on a place, time or social issue relating to science, technology, the humanities and social sciences.

K4. Investigate how educators can embrace diversity, teach for social justice and develop understandings of how events shape societies and places within them.

K5. Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.

Skills:

S1. Critically consider how students understand and express their experiences of the world at a local and global level and how to develop an ability to question, think critically, solve problems, communicate effectively, make decisions and adapt to change.

S2. Demonstrate the ability to link discipline-based domains of science and technology (Design and Technologies; Digital Technologies), including links to general capabilities and cross- curricular priorities.

S3. Apply literacy and numeracy strategies in the teaching of science and technologies.

S4. Organise classroom activities and provide clear directions.

Application of knowledge and skills:

A1. Using a range of resources and knowledge of student learning and effective teaching strategies, plan lesson sequences in science and technology, plan and present a lesson for reflection, and plan a lesson sequence that includes information and communication technology, general capabilities and cross-curricular priorities.

A2. Assess learners in ways that acknowledge and engage with diversity and diverse learners using a variety of assessment methods.

Unit Content:

• Key theoretical and pedagogical perspectives and issues in the teaching of science and technologies (Design and Technologies; Digital Technologies) with children.
• Methods and skills that are crucial to scientific inquiry, designing and making products.
• Current curriculum documents, including reference to general capabilities and cross- curricular priorities, and a variety of teaching strategies used in schools.
• Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.
• Conceptual ideas and processes about embedding science and technology (Design and Technologies; Digital Technologies), into classroom learning, understanding science as a human endeavour and the differences in learning progressions in science and technology (Design and Technologies; Digital Technologies).

• Literacy and numeracy teaching strategies in science and the technologies.

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, K4, S1, S2, S4, A1, A2, APST: 1.2, 1.3, 1.5, 2.1, 2.2, 2.3, 6.3	Using current curriculum documents, research, plan and present an 'Engage' or 'Tuning in' lesson. Write a personal reflection on the activity, noting the key scientific underpinnings, teaching strategies and student outcomes.	Seminar Presentation / teaching activity.	40-60%
K1, K2, K3, K4, K5, S1, S2, S3, S4, A1, A2, APST: 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3	Develop a coherent, active and meaningful inquiry unit of work with a theme that has a focus discipline in science and technology and enables integration across disciplines.	Integrated Unit of work	40-60%

Adopted Reference Style:

APA ()

Refer to the library website for more information

Fed Cite - referencing tool