TEAC 7122 SCIENCE FOR CONTEMPORARY LEARNERS

Credit Points 10

Legacy Code 102485

Coordinator Karina Mckoy (https://directory.westernsydney.edu.au/search/name/Karina Mckoy/)

Description The purpose of this subject is for students to investigate how primary-age children think scientifically and develop knowledge of the natural world, and explore constructivist strategies for teaching primary science aligned to current reform efforts. An emphasis will be placed on understanding the essential features of inquiry-based pedagogies, scientific practices, and the role of creativity, coding, and technology in teaching and learning science. Students will apply their understandings of learning and constructivist pedagogies to the design of a series of primary science lessons.

School Education

Student Contribution Band HECS Band 1 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Restrictions

Students must be enrolled in 1845 Graduate Certificate in Primary Science Education; 1847 Master of Education (STEM); 1887 Graduate Certificate in STEM Education or 1911 Master of Education.

Assumed Knowledge

A basic understanding of primary learners' cognitive development, features of positive classroom environments, and outcomes of the primary science syllabus is desirable.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Discuss how young learners develop knowledge to explain the natural world
2. Evaluate alternative conceptions related to primary science topics
3. Synthesize research-based strategies for confronting alternative conceptions
4. Apply inquiry-based pedagogical models to primary technology syllabus outcomes
5. Design primary science learning experiences that incorporate creativity, coding, and authentic scientific practices
6. Integrate appropriate technologies into primary science instruction

Subject Content

1. Understanding big ideas in the primary science curriculum
2. Constructivist frameworks for learning science
3. The role of inquiry, creativity, coding, and scientific practices in learning and teaching primary science
4. The relationship between science and technology in primary education
5. Technologies in primary science education
6. Lesson and unit planning in primary science education

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task
Case Study	2,000 words	50	N	Individual
Professional Task	2,000 words	50	N	Individual