TEAC 2053 SCIENCE AND TECHNOLOGY IN THE PRIMARY YEARS

Credit Points 10

Legacy Code 102644

Coordinator Jessy Abraham (https://directory.westernsydney.edu.au/search/name/Jessy Abraham/)

Description This subject introduces students to the NSW Syllabus for the Australian Curriculum: Science and Technology K-6. It focuses on developing students' pedagogical content knowledge appropriate for teaching science and technology to learners in the primary years. This subject demonstrates how scientific and technological learning experiences can be developed to cater for the needs of the diverse groups of learners in primary schools, including English as an Additional Language or Dialect (EAL/D), Aboriginal and Torres Strait Islander and low socioeconomic status (SES) learners. Students will also focus on themselves as learners and reflect on the implications of their learning and the learning of others in their future professional practice. This subject is included in the Development Phase of the Bachelor of Education.

School Education

Discipline Teacher Education: Primary

Student Contribution Band HECS Band 1 10cp

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

Level Undergraduate Level 2 subject

Restrictions

Students must be enrolled in the 1876 Bachelor of Education (Primary) or 1717 Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education.

Learning Outcomes

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

1. Explain central concepts in science and technology and understandings of the processes of investigating, designing, making and using technology;
2. Examine principles and practices of teaching and learning Science & Technology in primary classrooms;
3. Utilise knowledge of a range of resources appropriate to science and technology education in primary classrooms, including Digital Technologies;
4. Design learning experiences that demonstrate in-depth knowledge of the NSW Science & Technology K-6 Syllabus and use a range of pedagogies appropriate for science and technology education in primary schools;
5. Apply appropriate strategies to create a positive, engaging learning environment to support student effort and learning outcomes;
6. Examine the literacy and numeracy demands of Science and Technology; and demonstrate effective ways of integrating with classroom teaching;
7. Identify and articulate specific learning goals in preparing learning experiences for science and technology education that are appropriate for the cognitive, social and language abilities of students in primary schools;
8. Plan and implement coherent lessons and lesson sequences that are designed to engage students from English as an Additional Language or Dialect (EAL/D), Aboriginal and Torres Strait Islander and low socioeconomic status (SES) backgrounds and improve their learning outcomes in science and technology.

Subject Content

- The role and value of science and Technology in The broader school curriculum
- The components of the NSW Science & Technology K-6 Syllabus, including structure, aims and objectives, outcomes and content
- Problem solving, investigating, designing and making in science and Technology
- developing positive attitudes and motivation to learn more about scientific fields
- Understanding of concepts and concept development and strategies for developing sound conceptual understandings and skills
- designing Teaching and learning experiences and programming for effective science and Technology education
- The role of ICTs in science and Technology education: Integrating science and Technology in other curriculum areas and for Integrating other curriculum areas into science and Technology

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	Mandatory
Essay	700 - 900 words	20	N	Individual	Y
Applied Project	3 Digital images of the model + 1200 words	40	N	Individual	Y
Professional Task	1000 words	40	N	Individual	Y

Prescribed Texts

- NSW Education Standards Authority [NESA] (2017). Science and Technology K-6 Syllabus.

  https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/science/science-and-technology-k-6-new-syllabus (https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/science/science-and-technology-k-6-new-syllabus/)

- Skamp, K., Preston, C. (2020). *Teaching Primary Science Constructively* 7th Edition. Cengage Learning Australia Pty Ltd.

Teaching Periods

Spring (2025)
Bankstown City
On-site
Subject Contact Jessy Abraham (https://directory.westernsydney.edu.au/search/name/Jessy Abraham/)

View timetable (https://classregistration.westernsydney.edu.au/odd/
timetable/?subject_code=TEAC2053_25-SPR_BK_1#subjects)