

TEAC 7120 STEM PEDAGOGIES IN PRACTICE

Credit Points 10

Legacy Code 102511

Coordinator Mary Southall ([https://directory.westernsydney.edu.au/search/name/Mary Southall/](https://directory.westernsydney.edu.au/search/name/Mary%20Southall/))

Description The purpose of this subject is for students to gain exposure to authentic contexts for integrating science, technology, engineering and mathematics and to develop knowledge and skills with designing and implementing STEM learning experiences. Students will have the opportunity to complete an authentic interdisciplinary STEM task, and draw upon this experience to design and implement interdisciplinary STEM learning activities aligned to syllabus outcomes. This subject will allow students to simulate and evaluate the teaching practices associated with high-quality interdisciplinary STEM lessons, and collaborate with peers who have expertise in different STEM disciplines.

School Education

Discipline Teacher Education, Not Elsewhere Classified.

Student Contribution Band HECS Band 1 10cp

Level Postgraduate Coursework Level 7 subject

Pre-requisite(s) TEAC 7121 STEM Foundations (This prerequisite applies to students enrolled in program 1848 only)

Co-requisite(s) TEAC 7154
This corequisite applies to students enrolled in program 1848 only

Assumed Knowledge

It is assumed that students will have some knowledge of STEM based pedagogies, for example design thinking, project based learning, and case based instruction.

Learning Outcomes

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

1. Analyse essential features of authentic interdisciplinary STEM contexts
2. Critique the design of tasks that require learners to draw upon the STEM disciplines
3. Apply interdisciplinary pedagogies to the design of STEM learning experiences
4. Implement a STEM learning experience aligned to primary or secondary-level syllabus outcomes
5. Evaluate the classroom teaching practices of an interdisciplinary STEM lesson

Subject Content

Authentic STEM contexts
Authentic STEM tasks
Applying interdisciplinary STEM pedagogies
Designing interdisciplinary STEM learning experiences
Classroom teaching practices for interdisciplinary STEM lessons

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
Simulation	1 500 words	30	N	Individual
Professional Task	1 000 words & 50 30 minutes	50	N	Individual
Report	1,000 words	20	N	Individual

Teaching Periods

Autumn (2022)

Online

Online

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=TEAC7120_22-AUT_ON_0#subjects)

Autumn (2023)

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