

# TEAC 7120 STEM PEDAGOGIES IN PRACTICE

**Credit Points** 10

**Legacy Code** 102511

**Coordinator** Erin Mackenzie ([https://directory.westernsydney.edu.au/search/name/Erin Mackenzie/](https://directory.westernsydney.edu.au/search/name/Erin%20Mackenzie/))

**Description** The purpose of this unit 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 unit 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

Check your HECS Band contribution amount via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Postgraduate Coursework Level 7 subject

## 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.

Item	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

### Online

### Online

**Subject Contact** Erin Mackenzie ([https://directory.westernsydney.edu.au/search/name/Erin Mackenzie/](https://directory.westernsydney.edu.au/search/name/Erin%20Mackenzie/))

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