

# EDST6952

Science Method 2

Term 2, 2023





## Acknowledgement of Country

UNSW Arts, Design and Architecture Kensington and Paddington campuses are situated on the traditional lands of the Bidjigal and Gadigal peoples who are the traditional custodians of the land. We acknowledge the Aboriginal and Torres Strait Islander peoples, the winds and waters we all now share, and pay respect to their unique and enduring cultures which deepen and enrich the life of our nation and community.

Image courtesy of the Office of the Pro Vice-Chancellor Indigenous Learning and Engagement [UNSW Office of Indigenous Learning and Engagement](#)

## Course Details

Units of Credit 6

### Workload

150 hours including class contact hours, readings, class preparation, etc.

### Summary of the Course

This is a hybrid course. It is available to both undergraduate and post content, delivery and assessment will be identical for both groups of s

This course is designed to continue the development of Initial Teacher pedagogies for teaching Stage 4 and 5 Science, as well as offering an practice of science. Initial Teacher Education students will develop sk assessing, contextualising science, managing practical work in scienc resources into lessons. Important issues such as student prior learnin are also considered. Students will critically evaluate the features of e course focuses on the requirements and philosophy of the Stage 4 and

### Course Learning Outcomes

1. Identify essential elements of the NESA Science syllabus docume students as they transition between stages
2. Use strong knowledge of subject content to plan and evaluate coh challenging lessons, lesson sequences and teaching programs wh
3. Set achievable learning outcomes to match content, teaching stra types of assessment for a unit of work in science
4. Provide clear directions to organise and support prepared activiti
5. Assess and report on student learning in science to all key stake
6. Identify the characteristics of an effective science teacher and th practice in teaching, especially the attributes of Graduate teache

### Australian Professional Standards for Teachers

Standard		Assessment/s
1.1.1	Demonstrate knowledge and understanding of physical, social, and intellectual development and characteristics of students and how these may affect learning.	
1.2.1	Demonstrate knowledge and understanding of research into how students learn and the implications for teaching.	
1.3.1	Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistics, cultural, religious, and socioeconomic backgrounds.	
1.5.1	Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities.	
2.1.1	Demonstrate knowledge and understanding of the	

	concepts, substance and structure of the content and teaching strategies of the teaching area.	
2.2.1	Organise content into an effective learning and teaching sequence.	
2.3.1	Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.	
2.5.1	Know and understand literacy and numeracy teaching strategies and their application in teaching areas.	
2.6.1	Implement teaching strategies for using ICT to expand curriculum learning opportunities for students.	
3.1.1	Set learning goals that provide achievable challenges for students of varying abilities and characteristics.	
3.2.1	Plan lesson sequences using knowledge of student learning, content, and effective teaching strategies.	
3.3.1	Include a range of teaching strategies*.	
3.4.1	Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning.	
3.6.1	Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning.	
4.2.1	Demonstrate the capacity to organise classroom activities and provide clear directions.	
5.1.1	Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative, and summative approaches to assess student learning.	
5.2.1	Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning.	
5.3.1	Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning.	
5.4.1	Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice.	
5.5.1	Demonstrate understanding of a range of strategies for reporting to students and parents/carers and the purpose of keeping accurate and reliable records of student achievement.	
6.3.1	Seek and apply constructive feedback from supervisors and teachers to improve teaching practices.	
7.1.1	Understand and apply the key principles described in codes of ethics and conduct for the teaching profession.	

\* Covered during the course

## National Priority Area Elaborations

	Priority area		Assessment/s
A	Aboriginal and Torres Strait Islander Education.	5, 8	
C	Information and Communication Technologies.	4 - 5, 10	
D	Literacy and Numeracy.	1, 4-5, 7-16, 19	1, 2, 3

		17-18	
E	Students with Special Education	2, 6	1, 2, 3
F	Teaching Students from Non-English Speaking Backgrounds.	5, 7, 9	2, 6

\* Covered during the course

## Teaching Strategies

Rationale for the inclusion of content and teaching approach

Lectures, tutorials and assignments will cover a variety of approaches assessing in the classroom. Emphasis will be placed on the relationship of science, the role and value of science in society and science pedagogy strategies that can promote student engagement and achievement in science.

Student-centred activities will form the basis of the course. These activities will build on the discipline knowledge of the students and will allow them to engage in experiences that mirror those they will be expected to design for the real world. They will later teach these experiences to their students.

Teaching strategies





c. how they can effectively close the gap between a. and b.

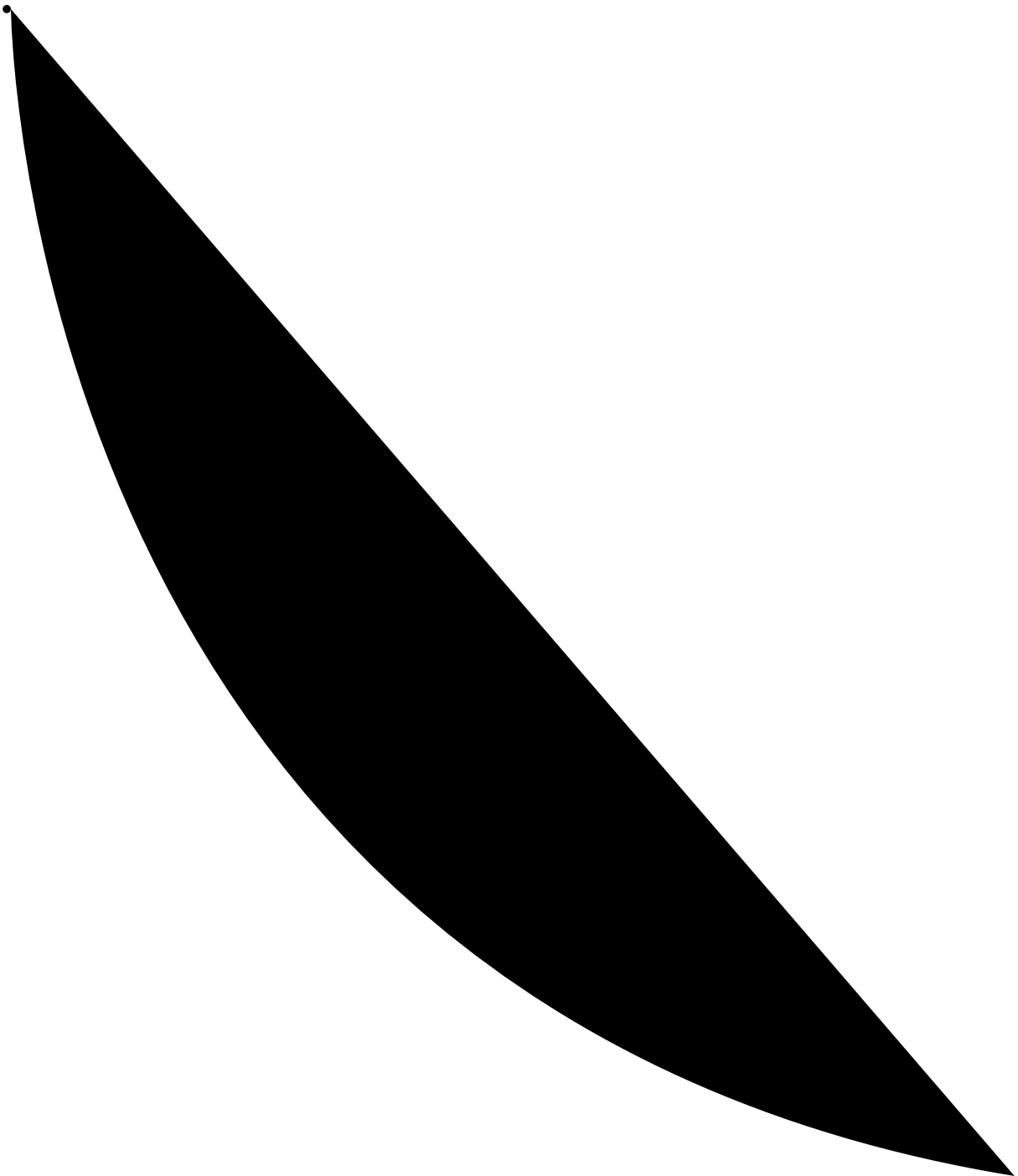
Include all activities and resources to support student learning. There is one activity/resource and one numeracy/ICT resource.

### Task 3: Common Assessment Module

There are two parts to this task:

Part 1: Common Assessment Module (a separate module to be completed in a separate course). It will be available to work on from Week 1 of UNSW Term 2.

- You will gather evidence from a variety of sources about learning and teaching information to improve learning and teaching.
- You will present your findings to the committee of the Common Assessment Module. There will be drop-in sessions in Weeks 8-13. This is the same time as the Common Assessment Module (from 1st July to 25th August 2023).







Specific Criteria	(-)		>(+)		
<ul style="list-style-type: none"> <li>Organises and structures scope and sequence according to NESA guidelines and requirements</li> <li>Follows NESA assessment guidelines</li> </ul>					
Presence of response according to appropriate academic and linguistic conventions					

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RUBRIC/FEEDBACK SHEET  
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Assessment Task 2: Unit of work

Specific Criteria	(-)		>(+)		
Understanding of the question or issue and the key concepts involved  <ul style="list-style-type: none"> <li>• Demonstrates knowledge of selected Stage 4 course and syllabus outcomes</li> </ul>					




	Tutorial	<ul style="list-style-type: none"> <li>• Strategies to manage class behaviour</li> <li>• Evaluating scenarios</li> <li>• Role play</li> </ul>
6	Lecture	<ul style="list-style-type: none"> <li>• Revisiting the National Professional Standards for Teachers; Professional Conduct and Ethics</li> </ul>

## Resources

### Prescribed Resources

#### Required readings

Each student is required to obtain from the NESA website the following

- Stage 4/5 Science Syllabus







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