

School of Education

EDST6922 Science Method 1

Term 1 2021

Contents

1.	LOCATION	3
2.	STAFF CONTACT DETAILS	3
3.	COURSE DETAILS	3
	STUDENT LEARNING OUTCOMES	4
	AUSTRALIAN PROFESSIONAL STANDARDS FOR TEACHERS	4
	NATIONAL PRIORITY AREA ELABORATIONS	5
4.	RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH	6
5.	TEACHING STRATEGIES	6
	COURSE CONTENT AND STRUCTURE	
7.	RESOURCES	9
8.	ASSESSMENT	10

IMPORTANT:

For student policies and procedures relating to assessment, attendance and student support, please see website, https://education.arts.unsw.edu.au/students/courses/course-outlines/

The School of Education acknowledges the Bedegal people as the traditional custodians of the lands upon which we learn and teach.

1. LOCATION

Faculty of Arts, Design & Architecture School of Education EDST6922 Science Method 1 (6 units of credit) Term 1 2021

2. STAFF CONTACT DETAILS

Course Coordinator: Rana Kaddour

Email: r.kaddour@unsw.edu.au

Availability: Please email for an appointment

Tutor: Matthew Couani

Email: <u>z3060870@unsw.edu.au</u>

Availability: Please email for appointment

3. COURSE DETAILS

Course Name	Science Method 1
Credit Points	6 units of credit (uoc)
Workload	Includes 150 hours including class contact hours, readings, class preparation, assessment, follow up activities, etc.
Schedule	http://classutil.unsw.edu.au/EDST_T1.html#EDST6922T1

SUMMARY OF COURSE

This initial teacher education course is designed to develop appropriate pedagogies for teaching Science, as well as offering an insight into the principles and practices for learning Science. Teacher education students will develop skills in planning and teaching lessons, contextualising science within the broader school curriculum, managing practical work in science classrooms and integrating ICT resources into lessons. Important issues such as student prior learning (including stage 3 outcomes), assessment, student differences and safety are also considered. Teacher education students will critically evaluate models of pedagogy and the features of effective classroom practice. The course focuses on the requirements and philosophy of the NSW Science syllabus for Years 7-10, including Year 7-10 Life Skills advice, outcomes and content.

THE MAIN WAYS IN WHICH THE COURSE HAS CHANGED SINCE LAST TIME AS A RESULT OF STUDENT FEEDBACK:

- There have been more opportunities to develop writing of lesson plans during tutorials.
- Students who are enrolled in a Stage 6 Science Method will do the Hurdle Microteaching task once, and students can choose the Method they prefer.
- Students will be provided with more opportunities to engage in practical demonstrations at Matraville High School.
- Most lectures will be delivered face-to-face at the university campus, with one lecture delivered online.

STUDENT LEARNING OUTCOMES

Outcome		Assessment/s
1	Identify foundational aspects and structure of the NSW Science K-10 Syllabus and the depth of subject knowledge required to implement the syllabus with specific emphasis on stages 4 and 5	1,2
2	Evaluate how student characteristics affect learning and evaluate implications for teaching students with different characteristics and from diverse backgrounds	1,2
3	Use a range of strategies to plan and teach effective lessons to engage all students, address relevant syllabus outcomes and ensure a safe learning environment	1,2,3
4	Plan teaching strategies which effectively communicate scientific thinking and problem- solving techniques; planning, conducting and communicating results of investigations; and central ideas in Science and common student misconceptions	1,2
5	Design and evaluate formative assessment strategies and include assessment for learning and as learning opportunities in Science education	1,2
6	Select appropriate resources, including ICT, to engage students and expand learning opportunities	2,3
7	Describe strategies that support students' wellbeing and safety in the Science setting, and curriculum and legislative requirements related to safety in Science.	2,3
8	Practice the ethical and professional values expected of teachers	3

AUSTRALIAN PROFESSIONAL STANDARDS FOR TEACHERS

Standard		Assessment/
111	Demonstrate knowledge and understanding of physical, social and intellectual	1
1.1.1	development and characteristics of students and how these may affect learning	
1 2 1	Demonstrate knowledge and understanding of research into how students learn	1,2,3
1.2.1	1.1.1 Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning Demonstrate knowledge and understanding of research into how students learn and the implications for teaching. Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistics, cultural, religious and socioeconomic backgrounds. Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds 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. Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans. Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres strait Islander histories, cultures and languages Know and understand literacy and numeracy teaching strategies and their application in teaching areas Implement teaching strategies for using ICT to expand curriculum learning opportunities for students. Set learning goals that provide achievable challenges for students of varying characteristics.	
	Demonstrate knowledge of teaching strategies that are responsive to the learning	1,2,3
1.3.1	strengths and needs of students from diverse linguistics, cultural, religious and	
	1.1.1 Demonstrate knowledge and understanding of physical, social and inte development and characteristics of students and how these may affect learning the implications for teaching. Demonstrate knowledge and understanding of research into how student and the implications for teaching. Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistics, cultural, religio socioeconomic backgrounds. Demonstrate broad knowledge and understanding of the impact of cultural identity and linguistic background on the education of student Aboriginal and Torres Strait Islander backgrounds Demonstrate knowledge and understanding of strategies for different teaching to meet the specific learning needs of students across the full reabilities 2.1.1 Demonstrate knowledge and understanding of the concepts, substant structure of the content and teaching strategies of the teaching area. 2.2.1 Organise content into an effective learning and teaching sequence. Use curriculum, assessment and reporting knowledge to design leasequences and lesson plans. Demonstrate broad knowledge of, understanding of and respect for Aborand Torres strait Islander histories, cultures and languages Know and understand literacy and numeracy teaching strategies an application in teaching areas Implement teaching strategies for using ICT to expand curriculum lease opportunities for students. Set learning goals that provide achievable challenges for students of characteristics. Plan lesson sequences using knowledge of student learning, conte	
	Demonstrate broad knowledge and understanding of the impact of culture,	2
1.4.1	cultural identity and linguistic background on the education of students from	
	Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning Demonstrate knowledge and understanding of research into how students learn and the implications for teaching. Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistics, cultural, religious and socioeconomic backgrounds. Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds 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. Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans. Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres strait Islander histories, cultures and languages Know and understand literacy and numeracy teaching strategies and their application in teaching areas Implement teaching strategies for using ICT to expand curriculum learning opportunities for students. Set learning goals that provide achievable challenges for students of varying characteristics. Plan lesson sequences using knowledge of student learning, content and effective teaching strategies.	
	Demonstrate knowledge and understanding of strategies for differentiating	2
2.1.1	teaching to meet the specific learning needs of students across the full range of	
	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. Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistics, cultural, religious and socioeconomic backgrounds. Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds 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. Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans. 2.4.1 Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres strait Islander histories, cultures and languages Know and understand literacy and numeracy teaching strategies and their application in teaching areas 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 characteristics. Plan lesson sequences using knowledge of student learning, content and effective teaching strategies.	
211	Demonstrate knowledge and understanding of the concepts, substance and	1,2,3
2.1.1	structure of the content and teaching strategies of the teaching area.	
2.2.1	Organise content into an effective learning and teaching sequence.	1,2,3
2.2.4	Use curriculum, assessment and reporting knowledge to design learning	1,2,3
1.2.1 1.3.1 1.4.1 1.5.1 2.1.1 2.2.1 2.3.1 2.4.1 2.5.1 3.1.1 3.2.1	sequences and lesson plans.	
2.4.1	Demonstrate broad knowledge of, understanding of and respect for Aboriginal	2
2.4.1	and Torres strait Islander histories, cultures and languages	
2.5.1	Know and understand literacy and numeracy teaching strategies and their	1,2,3
2.5.1	application in teaching areas	
2.04	Implement teaching strategies for using ICT to expand curriculum learning	1,2,3
2.0.1	opportunities for students.	
2.4.4	Set learning goals that provide achievable challenges for students of varying	1,2,3
3.1.1	characteristics.	
2 2 4	Plan lesson sequences using knowledge of student learning, content and	2,3
J.Z. I	effective teaching strategies.	
3.3.1	Include a range of teaching strategies.	1,2,3

3.4.1	Demonstrate knowledge of a range of resources including ICT that engage	1,2,3
0.4.1	students in their learning.	
3.5.1	Demonstrate a range of verbal and non-verbal communication strategies to	1,2,3
3.3.1	support student engagement.	
3.6.1	Demonstrate broad knowledge of strategies that can be used to evaluate teaching	2
3.0.1	programs to improve student learning.	
4.2.1	Demonstrate the capacity to organise classroom activities and provide clear	1,3
4.2.1	directions.	
4.4.1	Describe strategies that support students' wellbeing and safety working within	1
4.4.1	school and/or system, curriculum and legislative requirements.	
	Demonstrate understanding of assessment strategies, including informal and	2
5.1.1	formal, diagnostic, formative and summative approaches to assess student	
	learning	
6.3.1	Seek and apply constructive feedback from supervisors and teachers to improve	2,3
0.0.1	teaching practices.	
7.1.1	Understand and apply the key principles described in codes of ethics and conduct	3
7.1.1	for the teaching profession	

NATIONAL PRIORITY AREA ELABORATIONS

Priority area		Assessment/s
A. Aboriginal and Torres Strait Islander Education	4, 7	2
B. Classroom Management	1	1,3
C. Information and Communication Technologies	1, 3, 4, 5, 6, 10, 12	1,2,3
D. Literacy and Numeracy	1, 3, 4, 5, 8, 9, 10, 11, 12, 18, 19	1,2,3
E. Students with Special Educational Needs	7	1,2,3
F. Teaching Students from Non-English Speaking Backgrounds	4, 5	1,2,3

4. RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH

Lectures, tutorials and assignments will cover a variety of approaches to teaching and learning in the Science classroom. Emphasis will be placed on the relationship between the nature and practice of Science, the role and value of science in society and science pedagogy. A particular focus will be on strategies that can promote student engagement and achievement in Science.

Student-centred activities will form the basis of the course. These activities will draw on the prior discipline knowledge of the students and will allow them to engage in relevant and challenging experiences that mirror those they will be expected to design for the range of secondary students they will later teach.

5. TEACHING STRATEGIES

- Explicit teaching to foster an understanding of students' different approaches to learning and the use of a range of teaching strategies to foster interest and support learning.
- Small group cooperative learning to develop teamwork in an educational context and to demonstrate the use of group structures to address teaching and learning goals.
- Structured occasions for reflection on learning to allow students to reflect critically on and improve teaching practice.
- Extensive opportunities for whole group and small group dialogue and discussion, allowing students the opportunity to demonstrate their capacity to communicate and liaise with the diverse members of an education community, and to demonstrate their knowledge and understanding of method content.
- Online learning from readings on the Moodle website and online discussions.
- Microteaching: students will prepare and deliver a ten-minute demonstration lesson to their peers.
- In tutorials, students will work in small groups to develop diverse products such as contexts, sections of units of work, lesson plans, teaching resources, and assessment tasks. Each group will upload and share their work in progress to Moodle by 8:00pm. A debriefing session will be conducted after work submission during each tutorial.

These activities will occur in a classroom climate that is supportive and inclusive of all learners.

6. COURSE CONTENT AND STRUCTURE

Module	Lecture	Tutorial
1	 Introduction to course Introduction to structure and requirements Developing contexts: (1) making Science relevant in the broader school curriculum and (2) incorporating the nature of scientific thinking, the history of science and skills for working scientifically Physical, social and intellectual development of students and how this affects their engagement in learning 	What should be the nature of Science teaching in contemporary schools? Research on how students learn Nano teaching
2	Stage 4/5 Syllabus Transition from Stage 3 to Stage 4 Science Deconstructing the Stage 4/5 Syllabus: structure, requirements and associated documents Teaching strategies for Science	Workshop to explore and evaluate the suitability of teaching strategies to meet learning goals and outcomes
3	 Lesson planning Using the syllabus to plan Stage 4/5 lessons Planning Stage 4/5 lessons, including digital resources Setting challenging learning goals in lesson planning Developing a repertoire of teaching strategies for Science teaching How culture, cultural identity and linguistic background impact Aboriginal and Torres Strait Islander students Demonstration of microteaching 	 Setting high expectations for learning Strategies for making learning goals explicit for students How to structure instructions, questioning and transitions between activities Developing culturally responsive teaching strategies and resources
4	Practical Work and the Working Scientifically Outcomes • incorporation of literacy, digital literacy and numeracy strategies • Safety in the Science Laboratory Microteaching • Organisation of classroom activities • Providing clear directions	Explicit teaching of literacy, numeracy and ICT tools when needed Microteaching
5	Off-site: Matraville High School Orientation to a high school laboratory Safety and conducting practical work in a high school laboratory Modelling practical Science Stage 4/5 lessons	Peer assessment of WHS Develop a lesson plan for a practical demonstration Microteaching
6	Off-site: Matraville High School Strategies for managing practical work, including promoting inclusion and supporting students with disabilities	Practical Demonstrations Microteaching

	Using data loggers	
7	Planning Units of Work Using the Stage 4/5 Syllabus to sequence subject content across lessons within a unit of work Planning Units of Work: embedding Aboriginal and Torres Strait Islander histories and cultures in Science	Content selection and scope of content for effective lesson sequences for one stage Microteaching
	Week 8	Method Break
9 (Online, F2F, asynchron)	Teaching strategies to respond to individual needs and backgrounds Importance of matching teaching strategies to individual needs Appropriate selection of ICT resources to support learning Project Based Learning and STEM/STEAM Incorporating Project Based Learning (PBL) and STEM/STEAM in Stage 4/5	 How to use ICT to engage students with subject content Planning a PBL/STEM/STEAM unit by mapping the syllabus outcomes.
11	Preparing for Professional Experience • Becoming a reflective teacher through the feedback cycle • Organisational strategies • PE1: Building rapport with students and setting classroom expectations	Completing myExperience feedback Share resources developed during this course
	Professional Experience 1	

7. RESOURCES

Textbook details

Each student is required to obtain from the NESA website the following documents: Stage 4/5 Science Syllabus and the Stage 4/5 Support Documents.

It is not necessary to purchase Science textbooks for this course. Textbooks will not usually be used during tutorials.

Optional Junior Textbook

 Jenny Zhang, Diane Alford, David McGowan, Craig Tilley (2013) Oxford Insight Science 9 &10 (eBook version)

Additional readings

- Anstey, M. & Bull, G. (2006) Teaching and learning multiliteracies: Changing times, changing literacies. Curriculum Press, Melbourne.
- Attwood, B. (2005), Telling the truth about Aboriginal history. All and Unwin, Crows Nest.
- Bryson, B. (2004) A Short History of Nearly Everything, Black Swan, London
- Finger, G., Russell, G., Jamieson-Proctor, R. & Russell, N. (2006) *Transforming Learning with ICT Making IT Happen*. Pearson Australia
- Gibbons, P (2002) Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom. Portsmouth, Heinemann
- Hazzard, J. (2004) The Art of Teaching Science: Inquiry and Innovation in Middle School and High School
- Henderson, R. (2012). Teaching Literacies. Pedagogies and Diversity in the Middle Years, Oxford University Press, Australia
- Hyde, M., Carpenter, L. & Conway, R. (2010). Diversity and Inclusion in Australian Schools.
 Oxford University Press, Australia
- Martin, K. (2008). The intersection of Aboriginal knowledges, Aboriginal literacies and new learning pedagogy for Aboriginal students. In Healy, A (Ed.) Multiliteracies and diversity in education: New pedagogies for expanding landscapes pp 59-81. Oxford University Press, Melbourne.
- Price, K (2012), Aboriginal and Torres Strait Islander Education: An Introduction for the Teaching Profession. Cambridge University Press

Recommended websites

- NESA http://syllabus.nesa.nsw.edu.au/science/
- Science Teachers Association of NSW http://www.stansw.asn.au
- The Flipped Classroom
 - http://www.teacherstandards.aitsl.edu.au/Illustrations/ViewIOP/IOP00173/index.html
- Reflections of pre-service teachers, http://www.ttf.edu.au/psts-talk.html; this series of video clips shows the reflections of several pre-service teachers each of whom trialed one of the twelve Teaching Teachers for the Future (TTF) Australian Curriculum resource packages with a practicum class. At the end of their lesson the pre-service teachers were invited to reflect on the experience of working with the resource package and adapting it to their class situation. They were also asked to reflect on their understanding of TPACK.
- Student teachers are encouraged to set up their own blog (It is free) at Edublog, http://edublogs.org/ to create and share resources and lessons they create.

8. ASSESSMENT

Assessment Task	Length	Weight	Student Learning Outcomes Assessed	Australian Professional Standards Assessed	National Priority Area Elaborations Assessed	Due Date Tuesday of
Assessment Task 1: Lesson plan	c. 2000 words	40%	1-5	1.1.1, 1.2.1, 1.3.1, 2.1.1, 2.2.1, 2.3.1, 2.5.1, 2.6.1, 3.1.1, 3.3.1, 3.4.1, 3.5.1, 4.4.1, 4.2.1	A.4, 7 C. 1, 3, 4, 5 D1.3, 3, 4, 5, 8, 9, 10 F.4	Tuesday March 23 rd , 2021 by 5pm
Assessment Task 2: Unit of work	c. 3000 words	60%	1,2-7	1.2.1, 1.3.1, 1.4.1, 1,5,1, 2.1.1, 2.2.1, 2.3.1, 2.4.1, 2.6.1, 3.1.1, 3.2.1, 3.3.1, 3.4.1, 3.5.1, 3.6.1, 5.1.1, 6.3.1	A. 2, 5 C.6, 10, 12 D. 11, 12, 18, 19 E. 7 F.5	Tuesday April 27 th , 2021 by 5pm
Assessment Task 3: Microteaching	N/A	S/U	3,8	1.2.1, 1.3.1, 2.1.1, 2.2.1, 2.3.1, 2.5.1, 2.6.1, 3.1.1, 3.2.1, 3.3.1, 3.4.1, 3.5.1, 4.2.1, 6.3.1, 7.1.1	B.1 D, 1, 5 F.4	As allocated in tutorials

Submission of assessments

Students are required to follow their lecturer's instructions when submitting their work for assessment. All assessment will be submitted online via Moodle by 5pm. Students are also required to keep all drafts, original data and other evidence of the authenticity of the work for at least one year after examination. If an assessment is mislaid the student is responsible for providing a further copy. Please see the Student Policies and Procedures for information regarding submission, extensions, special consideration, late penalties and hurdle requirements etc. https://education.arts.unsw.edu.au/students/courses/course-outlines/

Assessment Details

Assessment Task 1: Lesson plan, Stage 4

Plan and design one 60-minute lesson for a mixed-ability Stage 4 class. The lesson plan must follow a standard SED format and be presented using the template provided.

Plan your lesson for a class in a comprehensive high school which would typically include EAL/D students, Indigenous students and students with various religious and cultural backgrounds. Some students may have low levels of literacy. Differentiation to cater for some students is therefore required. Appropriate differentiation strategies are scaffolding, group work and/or an alternative task or mode of presentation.

- 1. Write a rationale for your lesson plan. Your rationale should address the questions: What do I want the students to learn? Why is it important? What strategies will I use? What assessment for learning strategies will I use to monitor progress?
- 2. Prepare the lesson plan to demonstrate how you will use appropriate structure, activities, strategies and formative assessment in order for your students to develop understanding of the material.

Make sure you:

- choose an appropriate topic for the year group
- support your rationale using references indicating your professional reading
- choose appropriate outcomes and lesson content
- choose an appropriate context
- demonstrate knowledge of effective teaching and learning strategies
- use appropriate format and provide sufficient detail for an effective lesson plan
- include an aspect of literacy/numeracy which integrates with the lesson focus
- provide in full **one** activity (which may be ICT-based)
- express yourself in clear, standard Australian English.

Assessment Task 2: Unit of work, Stage 5

Prepare an outline for a unit of work for a Stage 5 class. The unit of work should cover the first five lessons, which are 80 minutes each; however, you are not preparing full lesson plans.

You must write a rationale for the unit (600-800 words) in which you:

- provide a brief outline of the school and class context
- state precisely what you want the students to learn and why it is important
- describe and justify your choice of context to suit the needs and abilities of this class
- justify your teaching strategies by referring to readings, research and material presented in lectures and the Quality Teaching framework
- demonstrate how differentiation will support a diverse range of learners
- describe the prior knowledge students have to begin this unit and discuss how you would assess and build on this prior knowledge.

The unit outline should be in a standard format that will be explained and investigated during lectures and tutorials. You will receive a **template** for the unit outline which you must use.

Your unit of work must have an embedded context and employ a logically sequenced series of lesson outlines, utilising a **variety of teaching strategies**. There should be potential for student engagement with the material taught –

- syllabus content statements for each lesson
- a description of the activities in each lesson
- one full activity for formative assessment (not an essay)
- one ICT-based activity (not watching a video or PowerPoint presentation)
- one group-work task with a focus on literacy/numeracy (not a mind-map)
- one incursion/excursion/performance/product activity
- · outlines only for the other teaching materials required

The assessment task is to be converted to a PDF with the student name in the title of the file and submitted via Moodle.

NB. ALL OUTCOMES AND CONTENT STATEMENTS MUST BE WRITTEN AS FULL STATEMENTS, ACCOMPANIED BY THEIR IDENTIFYING NUMBER.

Any website URLs included in your tasks must be hyperlinked.

HURDLE REQUIREMENT

ASSESSMENT TASK 3: MICROTEACHING

Microteaching is the planning, presentation and evaluation of a lesson over a shortened period of time (a 10-minute mini-lesson). It is a critical aspect of method as it provides students with the opportunity to demonstrate key competencies that must be achieved before student teachers are permitted to undertake Professional Experience 1, at the same time observing other student teachers and engaging in peer review. It is recommended that students read widely on effective classroom strategies and practise aspects of their mini-lesson with a small group of peers prior to assessment.

The assessment process will consist of the following two components:

- 1. A detailed **lesson plan using the prescribed SED template**, including a statement of expected learning outcomes
- 2. A 10-minute mini-lesson.

Initial Lesson Plan: You are to prepare a lesson plan from Stage 4 or 5, for a 10-minute lesson that includes a **practical demonstration** by the teacher, using readily available materials. You must use the SED template provided to you in lectures. The main focus of the lesson should be on the delivery by the teacher of some Science content and/or skills, supported by a demonstration. You should explicitly state the learning outcomes expected at the beginning of your lesson. Explicit teaching/acknowledgement of the literacy/numeracy needs required to access the content of the lesson must be included.

The final lesson plan should be submitted to the tutor via email on the day the lesson is presented, as well as a hard copy. The plan should include:

- an overview of the main ideas presented
- the expected student outcomes and content statements covered explicitly stated
- a brief description of where the lesson fits into the topic from which it is derived
- a description of the steps in the lesson and the time taken for each step
- a full description of the demonstration
- a brief activity that addresses literacy or numeracy

This task will be assessed according to the attached criteria and will be graded as **Satisfactory or Unsatisfactory**. Any student whose first microteaching episode is judged as unsatisfactory will be given a further (one only) opportunity to gain a satisfactory grade.

NOTE: If a student is assessed as unsatisfactory in microteaching s/he will automatically fail Method 1 overall, and not be permitted to undertake Professional Experience or any further method work in that teaching area until the key concerns have been resolved.

N.B. ALL OUTCOMES AND CONTENT STATEMENTS MUST BE WRITTEN AS FULL STATEMENTS, ACCOMPANIED BY THEIR IDENTIFYING NUMBER.

UNSW SCHOOL OF EDUCATION FEEDBACK SHEET EDST6922 SCIENCE METHOD 1

Student Name: Student No.:

Assessment Task 1: Lesson plan, Stage 4

SPECIFIC CRITERIA	(-) —	─── (+)
Understanding of the question or issue and the key concepts involved		
Rationale for lesson plan addresses the questions:		
What do I want the students to learn?		
Why is it important?		
What strategies will I use?		
What assessment for learning strategies will I use to monitor progress?		
Rationale supported using references indicating your professional reading		
Depth of analysis and/or critique in response to the task		
appropriate topic choice for the year group		
appropriate choice of outcomes and lesson content		
appropriate choice of context		
demonstrates knowledge of effective teaching and learning strategies		
appropriate selection of student activities		
 depth of knowledge of the NSW syllabus documents and other relevant 		
curriculum documents		
links between syllabus outcomes and the chosen activities evident		
Familiarity with and relevance of professional and/or research literature used		
to support response		
reference specifically to material, research and ideas presented in Science		
method lectures		
Structure and organisation of the response		
appropriateness of overall structure of response		
clarity and coherence of organisation; logical sequence		
use of appropriate format		
Presentation of response according to appropriate academic and linguistic		
conventions		
 clarity, consistency and appropriateness of conventions for quoting, citing, 		
paraphrasing, attributing sources of information, and listing references (APA		
style)		
 clarity and appropriateness of sentence structure, vocabulary use, spelling, 		
punctuation and word length		
GENERAL COMMENTS		

Lecturer: Date:

Recommended: /20 Grade: Weighting: 40%

NB: The ticks in the various boxes are designed to provide feedback to students; they are not given equal weight in determining the recommended grade. Depending on the nature of the assessment task, lecturers may also contextualize and/or amend these specific criteria. The recommended grade is tentative only, subject to standardisation processes and approval by the School of Education Learning and Teaching Committee.

UNSW SCHOOL OF EDUCATION FEEDBACK SHEET EDST6922 SCIENCE METHOD 1

Student Name: Student No.: Assessment Task 2: **Unit of work, Stage 5**

SPECIFIC CRITERIA	(-) —)) (+)
Understanding of the question or issue and the key concepts involved				
understanding of the task, including both a rationale and a unit of work				
Depth of analysis and/or critique in response to the task				
• ability to plan and assess for effective learning by designing lesson sequences using				
knowledge of the NSW syllabus documents or other curriculum requirements of the				
Education Act, including a rational that includes:				
- a brief outline of the school and class context				
- a statement of what students should learn students learn and why it is important				
 a description and justification of choice of context 				
 justification of teaching strategies by referring to readings, research and material presented in lectures and the Quality Teaching framework 				
 demonstration of how differentiation will support a diverse range of learners 				
 a description of the prior knowledge students have to begin this unit and discussion of how this prior knowledge will be assessed and built on 				
design of a unit outline				
 which uses teaching strategies related to the needs and abilities of the class 				
- contains an embedded context				
- employs a logically sequenced series of lesson outlines, utilising a variety of				
teaching strategies				
- has potential for student engagement with the material taught				
- contains the required lesson activities				
Familiarity with and relevance of professional and/or research literature used to support response		ļ		
reference specifically to material, research and ideas presented in Science method				
lectures and from the Professional Experience lectures.				
Structure and organisation of the response				
appropriateness of overall structure of response				
clarity and coherence of organization; logical sequence				
• use of appropriate format				
Presentation of response according to appropriate academic and linguistic				
conventions				
 contributions are complete and of a standard suitable for use with secondary school students 				
 clarity and appropriateness of sentence structure, vocabulary use, spelling, punctuation and word length 				
GENERAL COMMENTS				

NB: The ticks in the various boxes are designed to provide feedback to students; they are not given equal weight in determining the recommended grade. Depending on the nature of the assessment task, lecturers may also contextualize and/or amend these specific criteria. The recommended grade is tentative only, subject to standardisation processes and approval by the School of Education Learning and Teaching Committee.

Date:

Weighting:

60%

Lecturer:

Recommended:

/20

Grade:

Microteaching Feedback Form for Pre-service Teacher



STUDENT	TEACHER				_
Name:		zID:			Date:
Details Method			Topic/level		
Standards				Co	mments
(AITSL • Was the le	Standard 2) esson or unit of work re	ontent and how to teach that levant to the needs of the s uirements? (1.3.1, 2.3.1)			
	vledge of relevant conce ectives? (2.1.1, 2.4.1)	epts, topics and themes der	monstrated, inclu	uding	
• Were rele	vant linguistic structure	s and features and literacy			
/numeracy I	knowledge and skills in	tegrated into the lesson? (2	2.5.1)		
		nce of activities undertaken class or cohort? (2.2.1, 3.2		support	
• Were the	teaching resources and	d materials suitable for the a	aims of the lesso	n? (2.1.1)	
 Were task 	s required of students	modelled and scaffolded? (2.1.1, 3.3.1)		
B. Teache 3)	rs plan for and impleme	ent effective teaching and le	earning (AITSL S	Standard	
 Were chall 		l achievable goals in teachi ticulated in the lesson plan/			
 Were instr 	ructions, explanations a	and questioning techniques	effective? (3.3.1	1)	
classroom t		munication strategies used extanding of content and ext			
	ents' understanding col outcomes noted? (3.6	ntinually monitored and stud .1)	dents' achievem	ents of	
C. Teache Standa		supportive and safe learning	ng environments	(AITSL	
 Was rapp 	,	tablished and responsivene	ess to their need	s in the	
 Were active 	vities well organised and	d direction clear? (4.2.2)			
		others demonstrated throu biting a caring attitude? (4.			
Comments	:			I	
L	.ecturer:	Date:	Satisfactor	y/Unsatisfac	tory (circle)