



# School of Education

EDST6953  
Physics Method 2

Term 2, 2019

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## 1. LOCATION

Faculty of Arts and Social Sciences  
School of Education  
EDST6953 Physics Method 2 (6 units of credit)  
Term 2 2019

## 2. STAFF CONTACT DETAILS

Course Coordinator: Oriana Miano  
Email: [o.miano@unsw.edu.au](mailto:o.miano@unsw.edu.au)  
Availability: Please email for appointment

Tutor: Jennifer Ming  
Email: [j.ming@unsw.edu.au](mailto:j.ming@unsw.edu.au)  
Availability: Please email for appointment

## 3. COURSE DETAILS

<b>Course Name</b>	Physics Method 2
<b>Credit Points</b>	6 units of credit (uoc)
<b>Workload</b>	Includes 150 hours including class contact hours, readings, class preparation, assessment, follow up activities, etc.
<b>Schedule</b>	<a href="http://classutil.unsw.edu.au/EDST_T2.html">http://classutil.unsw.edu.au/EDST_T2.html</a>

## SUMMARY OF THE COURSE

This course is designed to develop in Initial Teacher Education students the appropriate pedagogies for teaching the Stage 6 *Physics syllabus*, as well as offering an insight into the nature and practice of Physics. Initial Teacher Education students will develop skills in planning, teaching and assessing, contextualising Physics, managing practical work in science classrooms and integrating ICT resources into lessons. Important issues such as student prior learning, student differences and safety are also considered. Students will critically evaluate the features of effective classroom practice. The course focuses on the requirements and philosophy of the NSW Science syllabuses, with emphasis on *Stage 6 Physics Syllabus*.

## THE MAIN WAYS IN WHICH THE COURSE HAS CHANGED AS A RESULT OF STUDENT FEEDBACK

The hurdle requirement is now held as a component of module 7, rather than earlier in the course. This change allows students more time to complete and submit the online assessment course and common e-portfolio. NB: The same portfolio covers both methods for which the student is enrolled.

## STUDENT LEARNING OUTCOMES

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### Outcome

- 1 Identify essential elements of the NESAs Physics

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5.4.1	Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice
5.5.1	Report on 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

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## NATIONAL PRIORITY AREA ELABORATIONS

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Priority area

#### **4. RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH**

## 6. COURSE CONTENT AND STRUCTURE

Module	Lecture	Tutorial
1 (24 hours eq. lecture/ tutorial time)	<b><i>On-line assessment module</i></b>  Introduction to the concept and principles of effective assessment practices and their applications to learning and teaching Focus is on building assessment	





## 7. RESOURCES

### **Required Readings**

Each student is required to obtain from the NESA website the following documents: *NSW Stage 6 Physics Syllabus* and Stage 6 Support Materials <https://syllabus.nesa.nsw.edu.au/physics-stage6/> .

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

### **Optional Senior Textbook**

[Xiao L. Wu](#), [Farr](#), R. (2009) *Physics in Focus*

### **Additional Readings**

Bryson, B. (2004) *A Short History of Nearly Everything*, Black Swan, London

Harrison, N (2008), *Teaching and learning in Indigenous education*. Oxford, Sydney

Hazzard, J. (2004) *The Art of Teaching Science: Inquiry and Innovation in Middle School and High School*

[Xiao L. Wu](#), [Farr](#), R. (2009) *Physics in Focus* (eBook version)

### **Recommended websites**

NESA

<http://syllabus.nesa.nsw.edu.au/science/>

Science Teachers Association of NSW

<http://www.stansw.asn.au>

Moodle Getting Started for Teachers [http://docs.moodle.org/en/Getting\\_started\\_for\\_teachers](http://docs.moodle.org/en/Getting_started_for_teachers)

Moodle Teacher Documentation

[http://docs.moodle.org/en/Teacher\\_documentation](http://docs.moodle.org/en/Teacher_documentation)

## 8. ASSESSMENT

Assessment Task	Length	Weight	Student Learning Outcomes Assessed	Program Learning Outcomes Assessed	National Priority Area Elaborations	Due Date
<b>Assessment 1</b> Scope and sequence and one assessment task for one term: Preliminary	2,000 words equivalent	40%	1, 2, 3, 4, 5	1.3.1, 1.5.1, 2.1.1, 2.2.1, 2.3.1, 2.5.1, 3.2.1, 5.3.1, 6.3.1	D.1, 4, 5, 7, 8, 11, 19 E.7 F.9	Wednesday 7 <sup>th</sup> August By 5.00pm
<b>Assessment 2</b> Unit of work for Year 12	3,000 words equivalent	60%	1, 2, 3, 4, 5	1.3.1, 1.5.1, 2.1.1, 2.2.1, 2.3.1, 2.5.1, 2.6.1, 3.2.1, 5.1.1, 5.4.1	A.5. 8 C.4, 5, 8, 12 D.4, 5, 8, 10, 11, 12, 15 E.2 F.5, 7, 9	Tuesday 3 <sup>rd</sup> August By 5.00pm
<b>Hurdle requirement</b> Assessment, Feedback and Reporting	In class	Hurdle Requirement	5, 6	5.1.1, 5.2.1, 5.3.1, 5.4.1, 5.5.1, 7.1.1	D.5, 9, 13, 14, 16 E.6	Friday 23 <sup>rd</sup>

## Assessment Details

### Assessment 1 (2 000 wd eq, 40%)

**PART 1:** Create a scope and sequence, including learning outcomes, covering 10 weeks for a Year 11 preliminary class.

**PART 2:** Prepare an assessment task (not an essay) that directly links to the teaching and learning

how the feedback form the summative task can also be used for formative assessment. Make sure your instructions for the task are grammatically correct and communicate effectively for students.

Design a marking rubric, which also includes space for a holistic comment.

Provide an exemplar student answer for the assessment task. Write a feedback comment for this response outlining its strengths and indicating at least one aspect which could be further improved.

### Assessment 2 (3 000 wd eq, 60%)

Prepare a unit of work for Year 12 which covers approximately half the term. You need to ensure the unit demonstrates you are ready to plan and teach Stage 6 effectively. Make sure you have reflected on the feedback you received for the scope and sequence you prepared for Assessment 1.

The unit of work should indicate a variety of formative assessment strategies which will provide students with feedback about:

- a. what they can already do well
- b. what they still need to improve
- c. how they can effectively close the gap between a and b.

Include all activities and resources to support student learning. There must be at least one literacy activity/resource and one numeracy/ICT resource.

## **HURDLE REQUIREMENT**

### **FEEDBACK AND REPORTING**

Assessment is the process of gathering evidence from a variety of sources about learning outcomes and being able to use that information to improve learning and teaching. Evidence includes not only



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FEEDBACK SHEET  
EDST6953 PHYSICS METHOD 2

Student Name:

Student No.:

**Task 1:** Create a Scope and sequence

**SPECIFIC CRITERIA**

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**Understanding of the question or issue and the key concepts involved**

Understanding of syllabus requirements regarding literacy, numeracy and the Working Scientifically skills

Understanding of strategies to develop literacy, numeracy and Working Scientifically skills

Understanding of Stage 6 Knowledge and Understanding requirements



