



School of Education

EDST6726

Extension Mathematics Method 1

Term 1 2021

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IMPORTANT:

For student policies and procedures relating to assessment, attendance and student support, please see website,

1. LOCATION

Faculty of Arts, Design & Architecture
School of Education
EDST6726 Extension Mathematics Method 1 (6 units of credit)
Term 1 2021

2. STAFF CONTACT DETAILS

Lecturer: Mark Goreta

STUDENT LEARNING OUTCOMES

Outcome	Assessment/s
1	Identify foundational aspects and structure of NSW Mathematics for stages 4, 5 and 6
2	Design lesson plans and teaching units which demonstrate essential links between outcomes, assessment, teaching strategies and lesson planning.
3	Discuss classroom strategies that

6. COURSE CONTENT AND STRUCTURE

For details of Microteaching see EDST6725

Module	Lecture	Tutorial
1	What is Mathematics? What has changed in Mathematics Education in recent years? What is expected of Mathematics teachers today?	Stage 4 – 6 Mathematics Syllabus in the Continuum of K-12 Where can you find resources? What professional networks are/is there to help you?
2	Meeting the needs of all students Teaching a class with students of varying ability Streaming in a subject with sequential content – what options may be available?	Planning lessons & units of work using ideas from the lecture <i>Student Presentations</i>
3	Lesson Starters and Rich Tasks Analysing lesson structure and content Using	

7. RESOURCES

Required Texts

Cavanagh, M. & Prescott, A. (2014). *Your professional experience handbook: A guide for preservice teachers*. Sydney: Pearson.

Goos, M., Stillman, G., & Vale, C. (2016). *Teaching secondary school mathematics: Research and practice for the 21st century*. Sydney: Allen & Unwin

NSW Board of Studies Stage 4, 5 & 6 Syllabuses

<http://educationstandards.nsw.edu.au/wps/portal/nesa/home>

Australian Curriculum Documents for NSW Stage 4 and Stage 5

Required 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*. Allen & Unwin, Crows Nest.

Boaler, J. (2010). *The Elephant in the Classroom: How to teach kids learn and love mathematics*

Finger, G., Russell, G., Jamieson-Proctor, R. & Russell, N. (2006) *Transforming Learning with ICT Making IT Happen*. Pearson Australia

Gibbons, P (2002)

8. ASSESSMENT

Assessment Task	Length	Weight	Student Learning Outcomes Assessed	Australian Professional Standards Assessed	National Priority Area Elaborations Assessed	Due Date
1. Writing Assessment tasks	c. 2500 words	30%	1, 2, 4	1.2.1, 1.3.1, 2.1.1, 3.3.1, 3.4.1	A.1-9 B.1-5 D.1-19	

2. The use of technology in teaching mathematical concepts (40%)

Explain how you would use a computer-based mathematical tool (e.g. Geogebra, Autograph, MSExcel, Wolfram Alpha, Desmos, Geometer's Sketchpad etc.) to help students learn a particular mathematical concept from the Stage 5 or Stage 6 (Mathematics Advanced or Mathematics Standard **Year 11 only**).

Identify a mathematical concept that you wish to teach using technology as an aide.

Identify all the NSW syllabus

UNSW SCHOOL OF EDUCATION
FEEDBACK SHEET
EDST6726 EXTENSION MATHEMATICS METHOD 1

Student Name:

Student No.:

Assessment Task 1: **Creating an assessment task**

Specific criteria

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