School of Education

EDST6726
Extension Mathematics Method 1

Semester 1, 2018

Contents

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 and Gadigal people as the traditional custodians of

1. LOCATION

Faculty of Arts and Social Sciences
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Student Learning Outcomes

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.

Structured occasions for reflection on learning to allow students to reflect critically on and improve teaching practice.

Online learning from readings on the Moodle website.

Online discussions.

Peer teaching in a simulated classroom setting.

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

6. COURSE CONTENT AND STRUCTURE

Week	Weekly Topic
1 26 Feb – 2 March	What is Mathematics? How has it changed in recent years? What is expected of Mathematics teachers? Where can you find resources? What professional networks are there to help you? Mathematics Syllabus in the Continuum of K-12 A1-6, B1-5, C1-6, D2-4,6, E1-4, F3-6 Presenter: Kate Patten
2 5 - 9 March	Meeting the needs of all students **Priority Areas** Students with additional support needs E1-4 *Student Presentations*
3 12 – 16 March	Lesson starters and Rich Tasks. Analysing Lessons Observing Lessons and reflecting on classroom practice. What is best practice? *Student Presentations*
4 19 – 23 March	Teaching with Technology: Geogebra & Marble Sliders **Priority Areas** ICT C1-6 *Class Quiz* *Student Presentations*
5 26 – 29 March	Good Friday: No Friday class this week
Mid-semester break (March 30th April 8th)	
6 9 – 13 April	High Performing Students *ICT skills* **Feedback Assessment 1/ Preparation for Assessment 2* **Priority Areas** Students with special educational Needs E1-4 *Student Presentations*

7 16 – 20 April *School Holidays Wk 1	Mathematics General Course Meeting the needs of Aboriginal and Torres Strait Islander Education **Priority Areas** Indigenous A1-9 Teaching Students from NESB F3, 4 Class Quiz *Student Presentations*
8 23 – 27 April **ANZAC Day** **25th April** *School Holidays Wk 2	Mathematics Standard Course Planning lessons & units of work *Student Presentations* Presenter: Kate Patten
9 30 April – 4 May	Preliminary & HSC Mathematics Course Teaching for Understanding

7. ASSESSMENT

Assessment Task	Length	Weight	Student

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, Geometer's Sketchpad etc.) to help students learn a particular mathematical concept.

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

Identify all the NSW syllabus outcomes in the task and show how they are linked to the activity.

Include an instruction worksheet for students to use for this activity using your ICT skills.

Include a lesson plan (see SED template). Include a detailed introduction to engage your students, enabling prompts and extending questions in your lesson plan.

You will need a written annotation to explain how the technology nominated in your task

8. 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. (2007). *Teaching secondary school mathematics: Research and practice for the 21st century*. Sydney: Allen & Unwin

NSW Board of Studies Stage 4, 5 & 6 Syllabuses
Australian Curriculum Documents for NSW Stage 4 and Stage 5

Required Readings