School of Education

Contents

1. LOCATION

Faculty of Arts, Design & Architecture
School of Education
EDST6756 Extension Mathematics Method 2 (6 units of credit)
Term 2 2022

2. STAFF CONTACT DETAILS

Course Coordinator(s):	Mark Goreta
Email:	m.goreta@student.unsw.edu.au
Availability:	By appointment

3. COURSE DETAILS

Course Name	Extension Mathematics Method 2
Credit Points	6 units of credit
Workload	150 hours including class contact hours, readings, class preparation, assessment, follow up activities, etc.
Schedule	http://classutil.unsw.edu.au/EDST_T2.html#EDST6756T2C

SUMMARY OF THE COURSE

This course is a continuation for students studying EDST6726. The focus of this course is on being accountable for developing student knowledge and appreciation of mathematics. This is through using formative and summative assessment, including NAPLAN results to guide teacher planning. This will also include the higher-level courses in the syllabus.

STUDENT LEARNING OUTCOMES

Outcome

3.6	Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning
4.1	Identify strategies to support inclusive student participation and engagement in classroom activities
4.2	Demonstrate the capacity to organise classroom activities and provide clear directions
5.1	Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative, and summative approaches to assess student learning
5.2	Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning
5.3	Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning
5.5	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

NATIONAL PRIORITY AREA ELABORATIONS

Priority area	National Priority Learning Area Elaborations
A. Aboriginal and Torres Strait Islander Education	5, 8
B. Classroom Management	1, 2, 4, 5, 6, 7, 10
C. Information and Communication Technologies	3, 4, 5, 6, 8, 13, 14
D. Literacy and Numeracy	6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
E. Students with Special Educational Needs	1, 4, 5, 6, 8
F. Teaching Students from Non-English-Speaking Backgrounds	5, 6, 7

4. RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH

The design of this course will enable teachers to engage with higher level syllabuses e.g., Mathematics Advanced, Extension 1 and 2. Students will be encouraged to evaluate their teaching to programs and strategies to improve student learning.

5. TEACHING STRATEGIES

Teaching strategies used during the course will include:

Small group cooperative learning, such as Jigsaw, Think, Pair, Share, to understand the importance of teamwork in an educational context and to demonstrate the use of group structures as appropriate to address teaching and learning goals.
Explicit teaching, including lec
approaches to learning and the use of a range of teaching strategies to foster interest and support learning.
Structured occasions for reflection on learning, such as the use of learning journals, to allow students to reflect critically on and improve teaching practice and strategies.
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.
Specific numeracy and problem-solving strategies.

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

6. COURSE CONTENT AND STRUCTURE

Module	Topics	Tutorials

7.

Professional websites for Mathematics teachers:

www.mansw.nsw.edu.au
www.aamt.com.au
https://www.nctm.org/
http://educationstandards.nsw.edu.au/wps/portal/nesa/home
NESA decides what is to be taught and examined. It also provides information about syllabus development, assessment requirements and examination timetables. The main function of this site is to provide teachers and students useful reference material, links to various related sites and an annotated bibliography of texts relevant to the syllabus and to Mathematics teaching.
http://www.det.nsw.edu.au - The Department of Education and Training. The DET has the responsibility for administering and staffing government schools and producing support material which can be found at: http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/index
www.studentnet.edu.au/aispd/index.html - The Association of Independent Schools
www.cecnsw.catholic.edu.au - The Catholic Education Commission
www.curriculum.edu.au - A part of the Curriculum Corporation of Victoria website. This is a tutorial which is useful if you are uncertain of how to use the internet and/or want ideas for using the internet in the classroom, teaching students how to explore English sites etc. Well worth a browse.
http://www.nswteachers.nsw.edu.au - The teaching standards detailed on the NSW Institute of Teachers website
http://www.naplan.edu.au/ - The National Assessment Program Literacy and Numeracy website
http://www.acara.edu.au/ - The Australian Curriculum, Assessment and Reporting Authority

8. ASSESSMENT

Assessment Task	Length	Weight	Student Learning Outcomes Assessed	Australian Professional Standards Assessed	National Priority Area Elaborations Assessed	Due Date
Assessment 1	Case study of a numeracy initiative (1500 words equivalent)	40%	1-5	1.3, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.2, 3.3, 3.4, 3.6, 4.1, 4.2, 5.1, 5.2	A5, 8 C3, 4, 5, 6, 8, 13, 14 D6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 E1, 4, 5, 6, 8 F5, 6, 7	Friday 5th August by 5pm
Assessment 2	Portfolio and rationale 3500 words equivalent	60%	1-5	1.2, 1.3, 1.5, 2.1, 2.3, 2.4, 2.5, 3.3, 3.4, 5.1, 5.2, 5.3, 5.5	A5, 8 B1, 2, 4, 5, 6, 7, 10 C3, 4, 5, 6, 8, 13, 14 D6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 E1, 4, 5, 6, 8 F5, 6, 7	Friday 26th August by 5pm

Submission of as(m)]TETQq74 Tm0 9 ref182(7,)4e70.4 Tm0 G[F5,)4(6,)4(7)]TETQ37948 557.14 117.6reW*nBQ37948 5

Assessment Details

Assessment 1: Case study of a numeracy initiative

Choose one mathematics lesson that you taught during your Practicum. This must be an actual lesson and not a revised or modified version. Describe the lesson and identify the specific strategies that you used to support numeracy. Indicate any significant experiences with students specifically involving numeracy and reflect upon what you did as a teacher and how you could have made the learning better. Explain how this reflection informs your teaching practice.

Detail an alternative approach to the one above for improving student numeracy for a mathematics class. Describe the characteristics of the students, their learning needs, and abilities. Outline how this approach and is relevant for all students within this class. Include an explanation of any formative and/or summative assessment/s that you would use. Support your assessment with references to literature and the recommended readings.

Assessment 2: P 0 1 un*nm1 0 5-2(i)0mprovin)5(g)4(ns)5teC8 0 itmaE 59/MC.32(maE 59/MC.32(maE 59/MC.32(maE

UNSW SCHOOL OF EDUCATION
FEEDBACK SHEET
EDST6756 EXTENSION MATHEMATICS METHOD 2

Student Name: Student No.:

Assessment Task 1: **Case study of a numeracy initiative**

SPECIFIC CRITERIA	(-) ——————➤ (+)
Understanding of the question or issue and the key concepts involved	
Understanding of the task and its relationship to relevant areas of theory, research, and practice	
Rationale linked to outcomes in the syllabus and to the national numeracy learning progression	
Depth of analysis and/or critique in response to the task	
Clearly describes teaching experiences to justify choices of teaching strategies	
Ability to critically reflect upon teaching practices to initiate improvement.	
Demonstration of knowledge, respect and understanding of the social, ethnic, cultural, and religious backgrounds of students and how these factors may affect learning	
Demonstrates knowledge of resources that will engage and extend all students	
Demonstrates an understanding of different strategies for assessing and evaluating numeracy	

UNSW SCHOOL OF EDUCATION
FEEDBACK SHEET
EDST6756 EXTENSION MATHEMATICS METHOD 2

Student Name: Student No.:

Assessment Task 2: **Portfolio and rationale**

SPECIFIC CRITERIA	(-) ——————➤ (+)				
Understanding of the question or issue and the key concepts involved Understanding the task and its relationship to relevant areas of theory, research, and practice Rationale linked to outcomes in the syllabus and to the numeracy learning progression					
Depth of analysis and/or critique in response to the task Justifications for the choice of material for the portfolio and its relevance to numeracy Demonstrated ICT skills for the presentation of the portfolio and its annotations Rationale for the selection of material to support numeracy development across the curriculum Demonstrated understanding of the link between working mathematically and numeracy and how numeracy is represented within other KLAs Demonstrated understanding of a whole school numeracy approach and the ability to communicate their own involvement Demonstration of knowledge, respect and understanding of the social, ethnic, cultural, and religious backgrounds of students and how these factors may affect learning					
Familiarity with and relevance of professional and/or research literature used to support response Reference specifically to material, research and ideas presented in method lectures, readings from the prescribed text and other sources, relevant lectures from the combined method lecture series and from the professional experience lectures on diversity **Reference all sources of your work** including yourself if you are the author					
Structure and organisation of response Presentation is logically structured, organised and professionally carried out					