

Unit Outline (Higher Education)

Institute / School: Institute of Education, Arts & Community

Unit Title: MATHEMATICS CURRICULUM 2

Unit ID: EDBED3128

Credit Points: 15.00

Prerequisite(s): (EDBED3028 or EDDDE3001)

Co-requisite(s): Nil

Exclusion(s): (EDBED3019 and EDDDE3101)

ASCED: 070301

Description of the Unit:

This unit follows on from Mathematics Curriculum 1 and focuses on curriculum and pedagogy in the Mathematics specialist teaching area for under-graduate pre-service teachers. It examines the congruence between pedagogy, curriculum and assessment. Pre-service teachers will be required to explore specific issues relating to current practice in the teaching of Mathematics in Years 7-10. They will be required to design and critically evaluate learning and assessment tasks, self-evaluate pedagogy, and conduct research in to key issues related to learning Mathematics in school. A particular focus will be the differentiation of learning of Mathematics.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

Not wholly work experience: Student is not undertaking work experience in industry or student is undertaking work experience in industry where learning and performance is directed by the provider.

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment

Course Level:

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Learning Outcomes:

Knowledge:

- K1.** Demonstrate an understanding of inclusive strategies for Mathematics at a secondary level.
- K2.** Develop an understanding about processes of acceleration and remediation in Mathematics.
- K3.** Demonstrate understanding of contemporary curriculum documents and guidelines relevant to teaching Mathematics in years 7-10.Ā
- K4.** Understand the congruence between pedagogy, curriculum and assessment.
- K5.** Demonstrate understanding of effective teaching strategies for Mathematics at the secondary level.

Skills:

- S1.** Write lesson plans and activities appropriate to a particular level of mathematics.
- S2.** Research and present historical and contemporary issues in Mathematics education.
- S3.** Identify and examine specific issues relating to current practice in the teaching of Mathematics in Years 7-10.
- S4.** Design forms of assessment consistent with curriculum documents.
- S5.** Design learning that caters for a range of abilities and interests.

Application of knowledge and skills:

- A1.** Produce, present, examine and evaluate an assessment task related to a real world mathematical problem.
- A2.** Design, teach and self-evaluate a lesson plan based around the theme of acceleration or remediation.
- A3.** Research and write a position paper related to a key issue in the teaching and learning of Mathematics.

Unit Content:

Topics to be covered

- Developing content for diverse learners.
- Examine a range of effective teaching strategies in mathematics including group work.
- Linking mathematics curriculum content to mathematical activities.
- Making links to previous mathematical knowledge.
- Organising content into effective learning sequences.
- Identifying strategies to support inclusion in mathematics.
- Engagement strategies for students of all abilities.
- Differentiation of activities to cater for students of all abilities
- Using diagnostic assessment to determine groupings within classes.
- Giving feedback to students and responding to feedback from colleagues.
- Equity issues faced by Australian mathematics educators.

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K3, K5 S1, S4, S5 A1 APST 2.1, 4.2, 5.1	Develop and create an assessment task for a particular year audience. This assessment task will have a real world focus and will be further refined after feedback.	Classroom Resource	30-40%
K2, K3, K4 S1, S5 A2 APST 1.5, 2.2, 2.3, 3.2, 3.3, 4.1	Self-Study in Mathematics: Research, design, present and self-evaluate a learning sequence based around the theme of acceleration or remediation.	Lesson plan	30-40%
K3 S2, S3 A3 APST 4.1	Position paper related to a key issue in the teaching and learning of Mathematics. The audience for this position paper is a School Council. This position paper will examine contemporary research and make recommendations that fit with research.	Academic Essay.	20-30%

Adopted Reference Style:

APA

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)