



# Course Outline

## EDGDS6023 MATHEMATICS CURRICULUM 1

<b>Title:</b>	MATHEMATICS CURRICULUM 1
<b>Code:</b>	EDGDS6023
<b>Formerly:</b>	TD790
<b>School / Division:</b>	School of Education
<b>Level:</b>	Advanced
<b>Pre-requisites:</b>	Required level of undergraduate study in discipline as specified by VIT
<b>Co-requisites:</b>	Nil
<b>Exclusions:</b>	(TD790)
<b>Progress Units:</b>	15
<b>ASCED Code:</b>	070301

### Objectives:

After successfully completing this course, students should be able to:

#### Knowledge:

- Build confidence with the content of secondary school Mathematics;
- Learn the techniques of teaching and learning Mathematics at the secondary level
- Become familiar with the Mathematics curriculum in both Years 7-10 and the VCE;
- Have a sound knowledge of theories about how other people construe and learn Mathematics;
- Have knowledge of a broad range of theories and approaches related to the learning and teaching of Mathematics and consider related issues;
- Develop understanding of the application and integration of technology in Mathematical investigations and presentations;

#### Skills:

- Use the current policy documents and the VCE Mathematics Study Design as a reference;
- Explore current practice with reference to curriculum documents as well as articles and papers written within the Mathematics Education community;
- Reflect on the processes associated with the teaching and learning of Mathematics;
- Develop skills in their own personal Mathematical competence;
- Familiarise themselves with the use of handheld technology in the learning of Mathematics;
- Develop assessment strategies as a basis for evaluation and informing future planning;

#### Values:



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- Develop an understanding of the nature and place of Mathematics as a “critical filter for further education and training”;
- Consider the inclusiveness or otherwise of Mathematics, and the values we teach;
- Develop an appreciation of the role as a teacher of Mathematics;
- Value the place of mathematics and mathematics education in society;
- Develop assessment strategies as a basis for evaluation and informing future planning;

### Content:

This unit focuses on various aspects of:

Topics may include:

- Values, nature and place of Mathematics and Mathematics Education in society;
- VELS, the National Curriculum and VCE outcomes;
- Current and past thinking on the techniques of teaching and learning Mathematics at the secondary level;
- Overview of the Mathematics curriculum in both Years 7-10 and the VCE;
- The use of curriculum documents in planning, programming and assessment;
- Development of critical reading of articles and papers written within the Mathematics Education community;
- Current issues of inclusiveness, values, gender, technology, ability grouping, numeracy in the Mathematics classroom.

### Learning Tasks & Assessment:

Learning Task	Assessment	Weighting
The completing of a textbook analysis. Views, ideas and recommendations are to be supported with current research and theories.  Relates to Objectives: K1, K2, K3, K4, K5, K6, S1, S2, S3, V1, V2, V4, V5	Written analysis in the form of an essay.	30 – 50%
Development of a series of lesson plans which includes assessment, based around a technology based theme such as hand-held technology.  Relates to Objectives: K1, K2, K3, K4, K5, K6, S1, S2, S4, S5, S6, V1, V2, V3, V4, V5	Development of the teaching resources, with a written justification for the use of the particular technology. Completed in pairs.	40 – 60%

### Adopted Reference Style:

APA