

Course Syllabus
MA 502: Mathematical Modelling, Number, and Data
Summer 2007

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Textbook: Cytological Mathematics by Robert Lewand

Course description:

Historical and philosophical foundations of mathematics and their relationships to numerical algorithms, approximation, error analysis, data representation, distributions, counting techniques, mathematical modeling and prediction.

Objectives:

This course will deepen students' understanding of how numerical algorithms, counting techniques, and distributions contribute to the solution of problems that also require approximations and error analysis. Students will explore the development and application of mathematical modelling in the solution of problems, and they will become more aware of connections between topics studied in this course and topics taught in the elementary and secondary curriculum.

Instructional Methods and Activities:

I will run the class as a seminar. While I will spend time on discussing certain topics, you are expected to actively participate in the development and study of the course content. One main goal is to provide you with opportunities to learn to construct both theoretical and practical mathematical skills as they relate to the content of the course.

Course Requirements (Tentative):

Homework assignments	100 pts
Participation	100 pts
Exam 1	100 pts
Exam 2	100 pts
Final Examination	100 pts

Evaluation:

100 – 90	A
90 – 80	B
80 – 70	C
70 – 60	D
Below 60	F