

MATH 006 - Introduction to Calculus

Winter Term 2007

This course is equivalent to the OAC calculus course and prepares students for MATH 121 or MATH 126. It is intended for students who have never taken a calculus course or those who have been away from mathematics for some time.

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Web Site: www.mast.queensu.ca/~math006

Location: JEFF 225

Time: Wednesdays 6:30-9:30PM

Textbook: Precalculus: Mathematics for Calculus, Fifth Edition by Stewart, Redlin and Watson (Brooks/Cole)

Handouts on specific topics not covered by the text will be provided in class.

Prerequisite: Ontario Grade 12 Mathematics *or* equivalent *and* permission of the department.

Evaluation: 20% Portfolios

Portfolios are five large assignments due roughly every two weeks. Explicit instructions will be given on the first day of class.

20% Quizzes and Class Participation

There will be both scheduled and unannounced quizzes. The lowest few will be dropped.

10% Homework

Homework will be due every week at the beginning of class. Late assignments will *not* be accepted. The assignments will be posted on the class web site; no paper copies will be handed out. The lowest mark will be dropped.

50% Final Examination

Topics: Introduction to Functions

Graphs

Average Rate of Change

Polynomials and Rational Functions

Limits

Introduction to Derivatives and Derivation Rules

Increasing/Decreasing Properties, Local Maxima and Minima

One-to-One Functions and Inverses

Exponential Functions and Logarithms

Modeling

Trigonometric Functions

Sequences and Series