

# Mathematics 110 – Calculus of one variable

TRENT UNIVERSITY, 2003-2004

## Instructors

### Section A

Stefan Bilaniuk (Стефан Біланюк)  
CCN H12  
Mon 12:00-12:50, Tue 13:00-13:50,  
Wed 16:00-16:50, and Thu 13:00-13:50,  
or by appointment, or just drop in ...  
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### Section B

Ion Rada  
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## Prerequisite

OAC or Grade 12 calculus with at least 60%, or equivalent.

## Text

*Calculus: Early Transcendentals* (5th edition), James Stewart  
Brooks/Cole Publishing Co., 2003, ISBN 0-534-39321-7

## Meetings

**Section A** - *Lectures*: Mon 18:00-18:50 in CCS 307, Wed 18:00-18:50 in OCA 203,  
and Thu 16:00-16:50 in OCA 203

*Tutorials*: Fri 12:00-12:50 in CCN M2 and Fri 13:00-13:50 in CCN M2

**Section B** - *Lectures*: Wed 12:00-12:50 in CCS 307, Thu 11:00-11:50 in ECC 201,  
and Fri 13:00-13:50 in OCA 203

*Tutorials*: Wed 13:00-13:50 in OCA 143 and Fri 13:00-13:50 in SC 103

## Marking Scheme

There will be approximately twenty weekly quizzes, six or so assignments, two term tests, and a final examination. Quizzes will normally be written weekly in the tutorials and last ten to twenty minutes apiece; assignments will usually be handed out and collected every three or four weeks. The tests will last fifty minutes each and will (tentatively) be written during the weeks of 10 November, 2003, and 2 February, 2004. The final examination will last three hours and will be written during the examination period in April. These items will count as follows towards the final mark:

|                                 |     |
|---------------------------------|-----|
| Best 16 quizzes (16 @ 2% ea.)   | 32% |
| Best 5 assignments (5 @ 4% ea.) | 20% |
| 2 Tests (2 @ 10% ea.)           | 20% |
| Final Examination               | 28% |

This scheme may be modified for students in *exceptional* circumstances. Any such modification will require the agreement of both the student and the instructor.

## MATH 110 Web Pages

<http://euclid.trentu.ca/math/courses/110/>

The MATH 110 web pages include up-to-date information about the course and a selection of past work, tests, and final exams. This year's work and other handouts will be put up there as it is assigned. Consult the web pages if you miss or lose a handout.

## Syllabus

0. Limits and continuity
1. Derivatives and applications
2. Definite and indefinite integrals
3. The Fundamental Theorem of Calculus
4. Techniques and applications of integration
5. Sequences and series, power and Taylor series

Some additional material is likely to be covered on assignments and in tutorials. Please note that the two sections are completely equivalent as a math credit and prerequisite for other courses.

## Honour

*Plagiarism is an extremely serious academic offence and carries penalties varying from failure in an assignment to suspension from the University.* Definitions, penalties and procedures for dealing with plagiarism are set out in Trent University's *Academic Dishonesty Policy* which is printed in the 2003-2004 Calendar supplement. It can also be found online at:

<http://www.trentu.ca/deansoffice/dishonestypolicy.html>

For clarity, the following guidelines will apply in MATH 110:

You are permitted and encouraged to study together and to work together on the assignments, consult any books or other sources you wish, and ask anyone willing (especially the instructor!) for hints, suggestions, and help. However, **you must write up all work submitted for credit entirely by yourself, giving due credit to all relevant sources of help and information. No aid may be given or received on the quizzes, tests, and exam**, except with the instructor's permission.

## Help!

Subject to the conditions mentioned above, you can get help from a number of different sources, especially from each other and from your instructor. Other possibilities include

- the student-staffed Mathematics Drop-In Centre, which will probably start operating a few weeks into the term at times and places to be announced,
- private tutoring by upper-year students (ask your instructor for suggestions),
- and the Academic Skills Centre, which has on-line materials likely to be particularly useful to those who need to brush up on "pre-calculus" mathematics. Please contact the Academic Skills Centre for more information.

Please check the handout *Enjoying Math!* for some useful hints on how to proper in first-year mathematics. It's mostly common sense, but that can be an uncommon quality . . .

## Aids

You may use whatever calculators you wish. Symbolic computation software such as **Maple** or **Mathematica** may also come in handy when doing some of the assignments or to check your answers when studying. On the tests and exam, but not the quizzes, you may also bring *one* of the following:

- an 8.5" × 11" aid sheet, with whatever you want on written on both sides of it; or
- a copy of the pamphlet *Formula for Success* published by Academic Skills, with whatever annotations you like in it.

## Inspiration

No doubt but magic may do much in this;  
For he that reads but mathematic rules  
Shall find conclusions that avail to work  
Wonders that pass the common sense of men.

Robert Greene (from his play *Friar Bacon and Friar Bungay*)