

# Mathematics 110 – Calculus of one variable

TRENT UNIVERSITY, 2002-2003

## Instructors

### Section A

Stefan Bilaniuk (Стефан Біланюк)  
CCN H12  
Mon 11:00-11:50, Wed 2:00-2:50,  
Thu 1:00-1:50, Fri 10:00-10:50,  
or by appointment, or just drop in ...  
748-1011x1474  
sbilaniuk@trentu.ca  
<http://www.trentu.ca/mathematics/sb/>

### Section B

Marcus Pivato (MARCUS PIVATO)  
OC 171  
Wed 2:00-2:50, 4:00-5:00  
Thurs 10:00-11:00  
or by appointment  
748-1011x1293  
mpivato@trentu.ca or pivato@math.uh.edu  
<http://www.trentu.ca/mathematics/mp/>

## Prerequisite

OAC calculus with at least 60%, or equivalent.

## Text

*Calculus: Early Transcendentals* (4th edition), James Stewart  
Brooks/Cole Publishing Co., 1999, ISBN 0-534-36298-2

## Meetings

**Section A** - *Lectures*: Mon 2:00-2:50, Wed 11:00-11:50, and Fri 9:00-9:50 in OCA 203.  
*Tutorials*: Wed 12:00-12:50 and Wed 1:00-1:50 in ESC B319.

**Section B** - *Lectures*: Mon 5:00-5:50, Tue 11:00-11:50, and Wed 13:00-13:50 in SC 137.  
*Tutorials*: Tue 3:00-3:50 in ESC B319 and Wed 3:00-3:50 in CCN M2.

## Marking Scheme

There will be approximately twenty weekly quizzes, about ten assignments, two 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 two or three weeks in the Monday lectures. The tests will last fifty minutes each and will (tentatively) be written during the weeks of 11 November, 2002, and 3 February, 2003. The final examination will last three hours and will be written during the examination period in April. These bits of work will weigh as follows in the final mark:

Best 16 (16 @ 2% ea.)	32%
Best 8 assignments (8 @ 3% ea.)	24%
2 Tests (2 @ 9% ea.)	18%
Final Examination	26%

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://www.trentu.ca/mathematics/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 will be put up there as it is assigned, as will some other items of interest. Consult the web pages if you missed a handout in class or lost it after receiving it.

## 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. The material in Section A will be geared a bit towards potential math majors and joint majors, while that in Section B will be geared towards those needing calculus for other majors. 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 offense and carries penalties varying from failure in an assignment to debarment from the University.* Definitions, procedures, and penalties for academic misconduct can be found in the Academic Regulations section of the Trent University Calendar. 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 the instructor. Other possibilities include

- the student-staffed Mathematics Drop-In Centre, which will probably start operating two or three weeks into the term at times and places to be announced,
- private tutoring by upper-year students (ask your instructor for suggestions),
- and the mathematics instructor at the Academic Skills Centre, Lawrence Wicks. His contact information, hours, and locations will be announced when they're available. Lawrence is likely to be particularly useful to those who have gaps in their high school mathematics or need to brush up on parts of it. He will also be offering four evening workshops this year:

*Making the most of your calculator*, 7:00-8:30 p.m. Tuesday, 17 September, in SC W3.

*Functions, graphs and equations*, 7:00-9:00 p.m. Thursday, 19 September, in SC W3.

*Trigonometry review*, 7:00-9:00 p.m. Monday, 23 September, in OCA 206.

*Exponents and logarithms*, 7:00-8:30 p.m. Wednesday, 25 September, in SC W3.

To sign up for any of these workshops, please contact Brenda Garofalo ([bgarofal@trentu.ca](mailto:bgarofal@trentu.ca) or 748-1011x1720) at the Academic Skills Centre.

## 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 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 *Friar Bacon and Friar Bungay*)