

The University of Northern British Columbia
College of Science and Management
Department of Mathematics

Mathematics 152
Calculus for Non-Majors
Fall 2009

Instructor: Dr Edward Dobrowolski
Office: T&L 10-2022
Office hours: M W F 1:00 pm – 2:00 pm in **MACE** (T&L 10-2088), or by appointment in my office.
Phone: (250) 960-5549
Email: dobrowoe@unbc.ca

Lectures: M W F 2:30 pm – 3:20 pm Agora 7 – 212

Textbook: Marvin L. Bittinger, David J. Ellenbogen, *Calculus and its Applications*, 9th Edition, Pearson Addison-Wesley 2007.

Optional: *Student's Solution Manual for Calculus and its Applications*, by Judith A. Penna, 9th Edition, Pearson Addison-Wesley.

Prerequisites: Math 12 or Math 115. (Credit will not be given for both: this course and either of Math 100 or 105)

Course Description: Limits, the derivative, techniques of differentiation, exponential functions and exponential growth, maxima and minima, curve sketching, introduction to differential equations, definite and indefinite integrals, partial derivatives, and optimization of functions of several variables.

Academic Offenses: It is every student's responsibility to work and study in an ethical manner. Please read Section 44 Academic Offences of the University Calendar. This section may be found at <http://www.unbc.ca/calendar/undergraduate/general/regulations.html> in the online calendar. This section explains the possible penalties for academic misconduct.

Electronic Devices: Electronic devices such as calculators, palm pilots, phones, CD players, etc., are not permitted in exams.

Accommodations: If there are students in this course who, because of a disability, may have a need for special academic accommodations, please come and discuss this with me, or contact Disability Services located in the new Teaching and Learning Building in Room 1048

Grading Scheme

Assignments	20%
Midterm 1	20%
Midterm 2	20%
Final Examination	40%

Assignments

Assignments will be collected on a weekly basis at the beginning of the lecture on a designated day. Usually, they will consist of the even-numbered problems selected from the textbook. Beside the even-numbered problems to hand-in, a selection of odd-numbered problems for individual practice is indicated in this outline. The completion of both groups of problems is essential for success in this course.

Assignments must be written in a special format:

- Each page must have a top margin including name, date, assignment number, page number and the total number of pages
- Problems must be written in the assigned order and separated by horizontal lines
- If a problem is omitted, write problem's number and leave a blank space
- Indicate the final answer by a box or an arrow
- Please, staple the pages

Tests

- Students are required to bring their student I.D. to each test.
- Leave backpacks, overcoats at front of room.
- Spread yourself out. If you need to sit next to someone, do so in the front rows only.
- Cheating on tests earns an automatic 0 grade

Blackboard Grades, midterm solutions, and other materials will be available on Blackboard.

Important Dates

- Midterm 1: **Friday, October 9**
- Midterm 2: **Friday, November 13**
- Last day to withdraw from courses without academic penalty: **Tuesday, October 20**
- Last day of classes: **Friday, December 4**

Course support is available from any and all of the following.

- **Mathematical Academic Centre for Excellence.** This is a dedicated drop-in centre for math help and is located in the new Teaching and Learning Building in room 2088. It is a great place to go and work on any Math/Mathematical courses!
- **One-to-one tutoring.** Go to the Learning Skills Centre to book 30 minute appointments. You may book as a small group as well.
- **Instructor Office Hours**

NOTE: All services are free.

Suggested Exercises

Section	Page	Problems
Review	610	1–131 (odds), 139-151 (odds)
R.1	11	1 – 13 (odds)
R.2	25	19, 21, 25 - 59 (odds)
R.3	36	1 – 15 (odds), 21 – 39 (odds), 55
R.4	51	1, 3, 19 - 25 (odds), 27 – 47 (odds), 61
R.5	70	5–11 (odds), 17,25,29,31,35,47,53,55,59,63
1.1	110	1, 11–17 (odds), 27–33 (odds), 45, 49, 55, 57
1.2	121	1 – 23 (odds), 29, 33, 35, 39–49(odds), 55
2.3	243	1, 3, 9–21 (odds)
1.3	130	1a, 7a, 11a, 27
1.4	145	3, 5, 7, 11, 13, 15(a,c), 21, 25, 35, 37
1.5	157	1–15 (odds), 19–43(odds), 55(a,c), 59, 69, 71, 79,
1.6	165	5, 7, 13, 17 – 45 (odds), 99
1.7	174	3 – 33(odds), 37, 39, 45–53 (odds), 57, 67, 69
1.8	181	3 – 27 (odds)
2.1	211	5, 7, 11, 17, 21, 23, 25, 31
2.2	228	3, 7, 11, 13, 15, 19, 25-31 (odds), 35, 37
2.4	254	9, 15, 21, 25, 31, 33, 51, 81
2.5	271	1, 5, 9, 13, 15, 17, 19, 27, 29, 31, 33
2.7	288	3 – 21 (odds)
3.1	315	1, 11 - 45 (odds)
3.2	332	1-5 (odds), 9,11,15, 23-27 (odds), 35-63 (odds)
3.5	368	1-29 (odds), 35, 51
4.2	409	1–27(odds), 35-45(odds), 47, 49, 61, 63, 65
4.3	421	1-15 (odds), 27-31 (odds), 43-57 (odds)
4.4	433	1-7 (odds), 11-31(odds), 60, 62
4.5	442	1- 49 (odds), 57, 70, 71, 73, 74, 75
4.6	451	1, 5 - 35(odds), 41, 43
5.6*	516	1-17(odds)
5.7	524	1-31 (odds)
3.3	347	3, 5, 7, 9, 15, 21
3.4	360	1, 3, 5, 11, 13, 17, 21, 27
6.1	545	1, 3, 5, 7
6.2	554	1-17 (odds), 27 - 39(odds)
6.3	563	1-11 (odds)
6.5*	579	1-13(odds)

*Time permitting