

THE UNIVERSITY OF WESTERN ONTARIO
LONDON CANADA
Brescia University College and King's University College

Mathematics 0110B

Winter 2012

- INSTRUCTORS:** **Brescia University College: C. Florence**
King's University College: R. Bryan
- TEXTBOOK:** *Custom Package: Applied Calculus for the Managerial, Life and Social Sciences, First Canadian Edition, by Tan, Menz, Ashlock, published by Nelson (text and student solutions manual). ISBN 0176507043*
- PREREQUISITES:** One or more of Ontario Secondary School MCF3M, MCR3U, or Mathematics 0105A/B or equivalent.
- ANTIREQUISITES:** Ontario Secondary School MCV4U, any university level calculus course including Mathematics 1225A/B, Calculus 1000A/B, Calculus 1100A/B, Applied Mathematics 1413, the former Mathematics 030.
- COURSE OUTLINE:** Limits, continuity, definition of derivative, rules for differentiation, implicit differentiation, velocity, acceleration, related rates, maxima and minima, exponential functions, logarithmic functions, differentiation of exponential and logarithmic functions, curve sketching.

WHAT IS EXPECTED OF THE STUDENT?

Students are expected to have a working knowledge of all relevant precalculus concepts, to attend classes regularly, to complete all assigned work, to assume complete responsibility for any classes, tests, or assignments which are missed.

EVALUATION OF STUDENT PERFORMANCE:

First Midterm Examination: (25 %) Friday, February 10, 2012, 7:00 p.m. - 8:30 p.m.

Second Midterm Examination: (25 %) Friday, March 16, 2012, 7:00 p.m. - 8:30 p.m.

Final Examination: (40 %) To be scheduled by the Registrar's Office. (3 hours).

Quizzes/Assignments : (10 %)

POLICY ON CALCULATORS AND OTHER ELECTRONIC DEVICES:

The use of calculators and other electronic devices will not be permitted for the midterm tests and the final examination.

NOTE: Also, no notes or other aids are allowed on any quiz, test, or exam in this course.

SENATE POLICY ON PREREQUISITES:

Students are responsible for ensuring that their selection of courses is appropriate and accurately recorded and that all course prerequisites have been successfully completed. If the student does not have the requisites for a course, and does not have written special permission from his or her Dean to enroll in the course, the student may be removed from the course and it will be deleted from the student's record. This decision may not be appealed. A student will receive no adjustment to his or her fees in the event that he or she is dropped from a course for failing to have the necessary prerequisites.

STATEMENT ON ACADEMIC OFFENCES:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

<http://www.uwo.ca/univsec/handbook/appeals/scholoff.pdf>

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

MEDICAL EXCUSE REGULATIONS:

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Dean's Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with his or her instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see:

<http://www.uwo.ca/univsec/handbook/appeals/medical.pdf>

A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.

The form can be found here:

https://studentservices.uwo.ca/secure/medical_document.pdf

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LIST OF SUGGESTED EXERCISES

These problems are found in the text for this course, which is in the following:
Custom Package: Applied Calculus for the Managerial, Life and Social Sciences, First Canadian Edition, by Tan, Menz, Ashlock, published by Nelson (text and student solutions manual). ISBN 0176507043

SECTION	PAGE	PROBLEMS
<i>PRE-CALCULUS REVIEW</i>		
1.1	9	odd # 5-17, odd # 23-27, odd # 43-49
1.2	21	odd # 1-5, odd # 11-25, odd # 31-37, odd # 45-49, odd # 53-75, odd # 89-99
1.4	37	odd # 1-63
<i>THE COURSE STARTS HERE</i>		
2.1	52	odd # 1-15, odd # 25-29, odd # 37-47
2.6	90	odd # 1-7, 19, 21, odd # 25-33, odd # 43-51
3.1	126	odd # 1-15, odd # 19-65, odd # 73-87, all # 102-107
3.2	140	all # 1-20, odd # 21-47, 55, 59, 67
3.3	157	odd # 3-27, all # 37-42
3.4	167	odd # 1-43, 53, 57
3.5	177	odd # 1-45, 55, 64, 66
3.6	190	odd # 1-47, odd # 59-73
4.3	222	odd # 1-25, 32, 34, 46
4.4	231	1, 3, odd # 9-51
5.1	261	odd # 1-35, 43, 45
5.2	269	odd # 1-9, all # 11-20, odd # 21-55, 59, 68, 77, 79
5.3	277	odd # 1-27, all # 29-39, odd # 41-47, 48, 71, 73
5.4	287	odd # 1-31, all # 33-43, odd # 45-57, all # 58-62, 70, 72
7.1	350	odd # 1-45, odd # 67-95, 101, 111, 132, 133, 136
7.2	365	1, odd # 5-37, all # 39-42, odd # 47-55, 59, odd # 67-75, 112, 114
7.3	380	odd # 11-27, odd # 31-39, odd # 45-51, all # 59-63
7.4	394	odd # 9-19, 23, odd # 35-47, 64, 96, 98, 99
7.5	407	1, 5, 7, 9, 11, 21, 27

Learning objectives

Students are introduced to mathematical concepts such as limits which are used in the definition of derivative. At the end of this course, students should be able to find derivatives to solve applied problems in related rates, curve sketching and other applications.

BRESCIA UNIVERSITY COLLEGE ACADEMIC POLICIES AND REGULATIONS

1. POLICY REGARDING MAKEUP EXAMS AND EXTENSIONS OF DEADLINES

When a student requests academic accommodation (e.g., extension of a deadline, a makeup exam) for work representing 10% or more of the student's overall grade in the course, it is the responsibility of the student to provide acceptable documentation to support a medical or compassionate claim. All such requests for academic accommodation **must** be made through an Academic Advisor and include supporting documentation. Academic accommodation on medical grounds will be granted only if the documentation indicates that the onset, duration and severity of the illness are such that the student could not reasonably be expected to complete her academic responsibilities. Appropriate academic accommodation will be determined by the Dean's Office in consultation with the student's instructor(s). Please note that personal commitments (e.g., vacation flight bookings, work schedule) which conflict with a scheduled test, exam or course requirement are not grounds for academic accommodation.

If supporting documentation is from a family physician, Hospital Urgent Care Centre or Emergency Department, or a walk-in clinic a UWO Student Medical Certificate (SMC) is **required**. To download an SMC go to <https://studentservices.uwo.ca/secure/index.cfm> and follow the link under "Medical Documentation". Documentation should be obtained at the time of the initial visit. If it is not possible to have an SMC completed by the attending physician, the student must request documentation sufficient to demonstrate that her ability to meet academic responsibilities was seriously affected. Please note that under University Senate regulations documentation stating simply that the student "was seen for a medical reason" or "was ill" is **not** considered adequate to support a request for academic accommodation. All documentation is to be submitted to an Academic Advisor.

Whenever possible, requests for academic accommodation should be initiated in advance of due dates, examination dates, etc. Students must follow up with their professors and Academic Advisor in a timely manner.

The full statement of University policy regarding extensions of deadlines or makeup exams can be found at <http://www.westerncalendar.uwo.ca/2011/pg117.html>.

2. ACADEMIC CONCERNS

If you feel that you have a medical or personal problem that is interfering with your work, contact your instructor and Academic Advisor as soon as possible. Problems may then be documented and possible arrangements to assist you can be discussed at the time of occurrence rather than on a retroactive basis. Retroactive requests for academic accommodation on medical or compassionate grounds may not be considered.

If you think that you are too far behind to catch up or that your work load is not manageable, you should consult an Academic Advisor. If you consider reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines (refer to the Registrar's website, www.registrar.uwo.ca, for official dates). You should consult with the course instructor and the Academic Advisor who can help you consider alternatives to dropping one or more courses. *Note that dropping a course may affect OSAP eligibility and/or Entrance Scholarship eligibility.*

The Dean may refuse permission to write the final examination in a course if the student has failed to maintain satisfactory academic standing throughout the year or for too frequent absence from the class or laboratory.

3. ABSENCES

Short Absences: If you miss a class due to a minor illness or other problems, check your course outline for information regarding attendance requirements and make sure you are not missing a test or assignment. Cover any readings and arrange to borrow notes from a classmate. Contact the course instructor if you have any questions.

Extended Absences: If you have an extended absence, you should contact the course instructor and an Academic Advisor. Your course instructor and Academic Advisor can discuss ways for you to catch up on missed work and arrange academic accommodations, if appropriate.

4. POLICY ON CHEATING & ACADEMIC MISCONDUCT

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences. Students are urged to read the section on Scholastic Offences in the Academic Calendar. Note that such offences include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course in the University or elsewhere. Students are advised to consult the section on Academic Misconduct in the Western Academic Calendar.

If you are in doubt about whether what you are doing is inappropriate or not, consult your instructor, the Student Services Centre, or the Registrar. A claim that "you didn't know it was wrong" is not accepted as an excuse.

The penalties for a student guilty of a scholastic offence (including plagiarism) include refusal of a passing grade in the assignment, refusal of a passing grade in the course, suspension from the University, and expulsion from the University.

Plagiarism:

Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar).

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com.

Computer-marked Tests/exams:

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating. Software currently in use to score computer-marked multiple-choice tests and exams performs a similarity review as part of standard exam analysis.

5. PROCEDURES FOR APPEALING ACADEMIC EVALUATIONS

All appeals of a grade must be directed first to the course instructor. If the student is not satisfied with the decision of the course instructor, a written appeal signed by the student must be sent to the Department Chair. If the response of the department is considered unsatisfactory to the student, she may then submit a signed, written appeal to the Office of the Dean. Only after receiving a final decision from the Dean may a student appeal to the Senate Review Board Academic. A Guide to Appeals is available from the Ombudsperson's Office, or you can consult an Academic Advisor. Students are advised to consult the section on Academic Rights and Responsibilities in the Western Academic Calendar.

6. PREREQUISITES AND ANTIREQUISITES

Unless you have either the prerequisites for a course or written special permission from your Dean to enroll in it, you will be removed from the course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Similarly, you will also be deleted from a class list if you have previously taken an antirequisite course unless this

has the approval of the Dean. These decisions may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course because you have taken an antirequisite course.

7. SUPPORT SERVICES

The Brescia University College Registrar's website, with a link to Academic Advisors, is at http://www.brescia.uwo.ca/academics/registrar_services/index.html.

The University of Western Ontario Registrar's website is at <http://www.registrar.uwo.ca/index.cfm>

Portions of this document were taken from the Academic Calendar, the Handbook of Academic and Scholarship Policy and the Academic Handbook of Senate Regulations. This document is a summary of relevant regulations and does not supersede the academic policies and regulations of the Senate of the University of Western Ontario.