

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

Mathematics 0105A

Fall 2011

INSTRUCTORS: Brescia University College: C. Florence
King's University College: R. Bryan

TEXTBOOK: *STUDENT VALUE PACKAGE: Precalculus Mathematics (Custom Publication) for Mathematics 0105A*, by Stewart, Redlin, and Watson, *Student Solutions Manual*, and *Enhanced Webassign Access Code* published by Thomson/Brooks/Cole. (Shrink-wrapped package) ISBN 017652682X

PREREQUISITES: One or more of Ontario Secondary School MCF3M, MCR3U, or equivalent.

ANTIREQUISITES: Ontario Secondary School MCV4U, any university level calculus course.

COURSE OUTLINE: Selected topics from Chapters 1-7. See the List of Suggested Exercises for more details.

WHAT IS EXPECTED OF THE STUDENT?

Students are responsible for the material presented in lectures and for learning how to solve the suggested exercises.

EVALUATION OF STUDENT PERFORMANCE:

First Midterm Examination: (25 %) Friday, October 14, 2011, 7:00 p.m. - 8:30 p.m.

Second Midterm Examination: (25 %) Friday, November 11, 2011, 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.

IMPORTANT SENATE POLICY:

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

Learning objectives

Students will study fundamentals, functions, algebra, exponential and logarithmic functions, and trigonometry. By the end of this course students should be well prepared in several mathematical concepts that may be used in science courses and an introductory calculus class.

Mathematics 0105A Problem List - 2011

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CHAPTER ONE: FUNDAMENTALS		
Section	Page	Problems
1.1	10	odd # 19-73, 79
1.2	21	odd # 1-29, odd # 35-55, odd # 61-77, 81, 89, 91, 95, 97, 99
1.3	32	odd # 13-55, odd # 61-71, 75, 81, odd # 83-111, 115, 117, 125, 127
1.4	41	odd # 5-45, odd # 55-63, odd # 67-91, 101
1.5	54	odd # 7-51, 55, 57, odd # 63-69, 75, 85, 89, 91, 95, 105, 111, 117
1.6	67	odd # 3-47, 53, 57, 59, 67, 69
1.7	80	odd # 11-19, 27, 29, 31, odd # 35-63, 73, 75, 77, 81, 99, 101
1.8	92	7, 9, 13, odd # 23-31, odd # 49-55, odd # 77-95, 109
1.10	115	odd # 3-11, odd # 15-37, odd # 45-55, 61, 75
1.11	121	odd # 5-29, 35, 37, 45, 47

CHAPTER TWO: FUNCTIONS		
Section	Page	Problems
2.1	149	odd # 17-63, 69, 71, 77
2.2	159	odd # 5-27, odd # 33-45, odd # 51-67
2.3	168	5, 7, 19, 21, 31, 33, 43, 47
2.4	177	odd # 5-23
2.5	187	5, 7, 9, odd # 19-41, odd # 45-49, odd # 55-65, odd # 75-79, 83, 87
2.6	196	odd # 5-13, odd # 21-43, odd # 49-53
2.7	204	odd # 5-29, 37, odd # 41-45, 49, 53, 55, 63, 89

CHAPTER THREE: POLYNOMIAL AND RATIONAL FUNCTIONS		
3.1	229	odd # 5-17, 23, 25, 31, 33, odd # 39-45, 51, 53, odd # 63-69, 75
3.2	243	5, 7, odd # 15-39, 47, 49, 75
3.3	251	3, 7, 9, odd # 13-43, 49, odd # 53-67
3.4	260	odd # 5-27, 33, 35, 41, 47, 51, odd # 55-63
3.7	289	odd # 11-39, 41, 43, 45, 55, 57, 59
CHAPTER FOUR: EXPONENTIAL AND LOGARITHMIC FUNCTIONS		
4.1	308	11, odd # 15-33, 37, 47, 51
4.2	312	odd # 7-13, 21, 25, 31
4.3	322	odd # 5-35, odd # 41-47, odd # 51-67, 85, 89
4.4	329	odd # 7-57, 69
4.5	338	7, 9, 11, 17, 23, 27, 29, 31, odd # 37-55, 71, 73, 77, 81
4.6	350	(If we have time) # 9, 17, 25
CHAPTERS FIVE AND SIX: TRIGONOMETRIC FUNCTIONS		
6.1	440	odd # 3-49, 87
6.2	448	3, odd # 7-13, odd # 25-31
6.3	459	3, 5, 7, odd # 11-47
5.2	384	odd # 5-23
5.3	396	odd # 3-9, odd # 17-25, odd # 29-33, 43, 45
5.4	405	odd # 3-9, 19, 25, 31, 41, 45
CHAPTER SEVEN: ANALYTIC TRIGONOMETRY		
7.1	498	odd # 3-19, 25, 29, 33, 37, 41, 45, 61, 69, 75, 79, 81
7.2	505	odd # 3-19, odd # 21-29, 33, 55
7.3	514	odd # 3-9, 29, 51
7.4	522	5, 7, 13, 17, 27, 31, 33, 41, 53
7.5	528	3, 5, 7, 13, 17, 23, 43, 45

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.