

THE UNIVERSITY OF WESTERN ONTARIO
LONDON CANADA
DEPARTMENT OF MATHEMATICS

Mathematics 0110A
Introductory Calculus

September - December 2016

INSTRUCTORS: (*Course Coordinators: J. Turnbull and V. Olds*)

001 - P. Gupta; 550 (Huron) - J. Rosario-Ortega; 570 & 571 (King's) - J. Turnbull
(*See Class Schedule and Instructor Contact Information on next page.*)

TEXTBOOK: *Custom package (text and student solutions manual):*

*Custom Edition of **Applied Calculus** by Tan, Menz, Ashlock, published by Nelson Education Ltd.,
ISBN: 0176555544 (Or 0176330729 for the text and 0176668128 for the solutions if purchased separately.)*

PREREQUISITES:

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

ANTIREQUISITES:

Mathematics 1225A/B, Calculus 1000A/B, the former 1100A/B, 1500A/B, Applied Mathematics 1413.

COURSE OUTLINE:

Limits, continuity, definition of derivative, rules for differentiation, higher-order derivatives, velocity, acceleration, implicit differentiation, related rates, exponential functions, logarithmic functions, differentiation of exponential and logarithmic functions, maxima and minima, concavity, curve sketching, optimization.

COURSE WEB SITE:

Various supplemental materials, such as practice tests and solutions for some homework exercises, are posted on the course OWL web site. In addition, there are forums on which students may post questions. Important information will be posted on the NEWS forum and/or on the class page on the web site. All students are expected to be aware of information, and make use of materials, posted on the course web site.

WHAT IS EXPECTED OF THE STUDENT?

Working knowledge of, and any needed review of, all relevant pre-Calculus concepts; regular attendance at classes; completion of all assigned work; assumption of complete responsibility for any classes, tests, or assignments which are missed; awareness of items on the NEWS forum and use of materials posted on the course OWL web site. It is up to the student to seek out help when needed.

Please contact your course instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x82147 for any specific question regarding an accommodation.

EVALUATION OF STUDENT PERFORMANCE:

Students will be assessed on the basis of "Class Work", 2 Term Tests, and a Final Exam. The means of assessing the Class Work component will be determined by the instructor of each section, and may be for participation, quizzes, assignments, etc. For each class, information about how the Class Work component will be assessed, and details of the timing, will be announced in class and also posted on the appropriate "class page" on the OWL web site.

The 2 Term Tests, each 90 minutes in length, will be held on:

Saturday October 22 2016, 4:30 - 6:00 p.m. and **Saturday November 19 2016**, 4:30 - 6:00 p.m.

Locations of these tests will be announced in class and/or on the course web site. The Final Exam will be 3 hours in length, covering all of the course material. This exam will be scheduled by the Registrar's Office during the December Exam Period. A mark of 0 will be recorded for any test or examination missed.

Calculation of Final Grade:

Each Term Test counts for 25%, the Class Work component counts for 10% and the Final Exam counts for 40%.

Notes:

1. The Tests and Examination will all have some multiple choice questions and some written answer questions.
2. **NO calculators or other electronic devices or any other aids are allowed on tests and exams.**
3. *If the student's final exam mark is higher than a test mark (for a test which the student wrote), the weight from that test will be shifted to the final exam. This may apply to either, or both, of the term tests.*
4. See Absence / Missed Work policy on next page.

CLASS SCHEDULE:

Section	Campus	Instructor	Days & Times	Location
001	Main	P. Gupta	TuTh 7 - 9 p.m.	NSC 7
550	Huron UC	J. Rosario-Ortega	MTuWF 11:30	HUC - V 210
570	King's UC	J. Turnbull	Tu 1:30 - 3:30 Th 1:30 - 3:30	KUC - W 168 KUC - LH 100
571	King's UC	J. Turnbull	MF 10:30 - 11:30 Tu 10:30 - 11:30 W 10:30 - 11:30	KUC - LH 103 KUC - SA 150 KUC - LH 105B

INSTRUCTOR CONTACT INFORMATION: (any changes/updates will be posted in the course OWL web site)

P. Gupta (001): pgupta45@uwo.ca, MC 120, X86059

J. Rosario-Ortega (550): jrosari3@uwo.ca, HUC - OR 154; main campus MC 103H, X86884

J. Turnbull (course co-coordinator & 570 & 571): jturnbu7@uwo.ca, KUC - W 233

V. Olds (course co-coordinator): volds@uwo.ca

Note: Any email sent to an instructor or a course coordinator **MUST say Math 0110A in the subject line**. Any email without this, and/or any email sent from other than a UWO email address, may be deleted unread.

IMPORTANT NOTE: The provision in note 3 above about the weighting of the final exam is intended to allow students who struggle with the course material, but DO master it by the end of the term, to receive a grade which reflects their understanding at the end of the course. It DOES NOT mean that it's okay to ignore the course until just before the final exam. Most of the students who take this course find that the material does not come easily. Students need to work steadily at this course **THROUGHOUT** the term to have any realistic hope of a successful result.

SENATE POLICY ON PREREQUISITES:

Prerequisite checking is the **student's responsibility**. Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this 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.

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/pdf/academic_policies/appeals/scholastic_discipline_undergrad.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.

ABSENCE / MISSED WORK:

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 your 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 concerning UWO's Policy on Accommodation for Medical Illness please refer to this policy at: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_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

A makeup will be held for each term test as well as for the final exam. Only students with prior permission from their instructor will be allowed to write the makeup for a test. Only students with a Recommendation for Special Exam from their Dean's Office will be allowed to write a makeup for the Final Exam. Any student who misses a portion of the Class Work component of the grade for any legitimate reason should contact your instructor as soon as possible. Supporting documentation may be required. In the case of missed Class Work, or if a student is unable to write the scheduled makeup for a Term Test due to a documented prolonged or recurring absence or other legitimate conflict, your instructor will decide whether to accommodate by rescheduling or by reweighting that component of the grade.

SUPPORT SERVICES

Office of the Registrar

UWO www.registrar.uwo.ca

Huron www.huronuc.on.ca/CurrentStudents/StudentLifeandSupportServices/AcademicResources

King's www.kings.uwo.ca/academics/academic-deans-office/

Student Development Services www.sdc.uwo.ca

Learning Skills Services <http://sdc.uwo.ca/learning/>

USC <http://westernusc.ca/services>

Academic Calendar www.westerncalendar.uwo.ca

ITS www.uwo.ca/its/helpdesk

Students who are in emotional/mental distress should refer to Mental Health @ Western via the link given below for a complete list of the options about how to obtain help: <http://www.uwo.ca/uwocom/mentalhealth/>

Mathematics 0110A Recommended Exercises - Fall 2016

Section	Page	Problems
Pre-Calculus Review		
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.
Homework Problems		
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.

Notes:

- **Chapter 1 problems are for review by the student and should be completed as soon as possible.**
- Page numbers and text references refer to the custom published text for Math 0110A/B.
- Any changes to this list will be announced on the NEWS and/or Homework forums in the OWL web site.
- Answers for odd numbered questions are in the back of the text. Solutions for odd numbered questions are in the Student Solutions Manual purchased with the text. Answers and complete solutions for assigned even numbered questions are posted on the Homework page of the course web site. More detailed solutions for some odd numbered questions are also posted on the Homework page.