

THE UNIVERSITY OF WESTERN ONTARIO
DEPARTMENT OF MATHEMATICS

Mathematics 1225B
Methods of Calculus

Main Campus and Brescia
January - April 2021

NOTE: Many science/technically oriented courses and programs, at Western and at other universities, require a full-year calculus course (such as Calculus 1000A and 1501B). Mathematics 1225B may not be appropriate and will not serve as a prerequisite for Calculus 1301B or 1501B.

INSTRUCTORS: (*Course Coordinator: V. Olds*)

001 - V. Olds (volds@uwo.ca); 530 (Brescia) - A. O'Hara (aohara@uwo.ca); (This course is also offered at Huron.)

Note: Any email sent to an instructor (and especially to the course coordinator) **MUST say Math 1225B in the subject line**. Any email without this, and/or sent from other than a UWO email address, may be deleted unread.

TEXTBOOK: (required) Custom Text for Maths 0110A/B, 1225A/B and 1230A/B, 1st Ed.

print version: *Custom package with text and Student Solutions Manual* ISBN/SKU: 0176935959

or e-books: text SKU CEB_EBOOKID=9688080, SSM SKU CEB_EBOOKID=9688102

This **required text is new this year**. Previous texts for this course **are not** suitable as a replacement.

PREREQUISITES:

Ontario Secondary School MCV4U or equivalent (High School Calculus), or Mathematics 0110A/B.

ANTIREQUISITES:

Applied Mathematics 1201A/B, 1413, Calculus 1301A/B, 1501A/B, Mathematics 1230A/B. **If Calc 1000A/B or 1500A/B was completed after Sept. 1 2016 it is an antirequisite** (but not if it was completed before that time).

COURSE OUTLINE:

Logarithmic, exponential and trigonometric functions; integration, applications of integration (area); techniques of integration, improper integrals; functions of several variables, Second Partial Test, Lagrange Multipliers; first order differential equations and their applications.

COURSE WEB SITE:

This course is running in OWL, in a course site shared by the main campus and Brescia sections. In addition to instructors' lectures, and some supplements to the text book, various other materials are posted there, including practice tests and the lecture notes and videos for the online version of this course. Important course information will be posted on the NEWS forum on the web site. As well, each class has a class page on the course site.

WHAT IS EXPECTED OF THE STUDENT?

Students should make a serious effort to understand all course material and do all the assigned homework. The student must assume responsibility for staying up to date with course content and for being aware of posted deadlines and other information. It is up to the student to seek out help when needed.

Please contact the 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 Online Quizzes, 2 Term Tests, and a Final Exam.

The Online Quizzes are completed in OWL. See the Quiz Schedule and Quiz Information documents posted on the Course Information page on the site.

The 2 Term Tests are each 90 minutes in length. The days and times of these tests have not yet been approved by the UWO Administration, but will be *tentatively set* for Fri. Feb. 5 and Fri. Mar. 12, and will be confirmed as soon as possible. The times of these tests will be given in Eastern Time. Students in time zones for which these test times are not suitable should contact their Instructor requesting to be allowed to write the tests at the alternative time offered.

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 April Exam Period.

Calculation of Final Grade:

Each Term Test will count for 20%, the Final Exam will count for 40% and the student's best 5 of the 6 Online Quizzes will each count for 2%, for a total of 10%. The remaining 10% weight will be assigned to whichever of the three tests/exams is the student's best mark.

Notes:

1. The Quizzes, Term Tests and Exam will consist entirely of multiple choice questions..
2. **NO calculators or other electronic devices or any other aids are allowed on assessments.**
3. See Absence / Missed Work policy on next page.
4. Makeup examinations for the term tests are available to those who gain accommodation and are anticipated to be provided in the week following the assessment.

Important:

Tests and examinations in this course will be conducted using a remote proctoring service, currently Proctortrack. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide personal information (including some biometric data) and the session will be recorded. More information about this remote proctoring service is available in the Online Proctoring Guidelines at the following link:

<https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>

and the Remote Proctoring at Western website at <https://remoteproctoring.uwo.ca>.

Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. Information about the technical requirements are available at the following link: <https://www.proctortrack.com/tech-requirements/>

The Math Department has elected to use remote proctoring in this course as a means for validating that students have met the learning outcomes of the course. Given the introductory nature of the learning outcomes tested, unproctored assessments such as term papers or take-home examinations, would not provide an adequate way to distinguish between answers provided by different students. Use of online proctoring assures students that they can write assessments on equal terms with their classmates and signals to prospective employers, graduate supervisors, and professional schools that, despite the COVID-19 pandemic, Western has endeavoured to maintain the high standards that are at the core of our degrees.

Note: For each remotely proctored assessment, 30 minutes will be added to the time allowed to compensate for any time lost due to technical difficulties. Students experiencing such difficulties must reach out to Exam Central via the Western Exam Chat Support page on the course site for assistance.

CLASS POLICIES:

- All students are expected to engage online in a professional and respectful manner. This includes all interactions with peers, as well as communication between TAs or your Professor. Failure to do so will result in academic discipline.
- Recording of lectures or tutorials without the explicit consent of the Professor or TA is grounds for academic discipline.
- Course content created by a faculty member is considered the faculty member's intellectual property; it may not be distributed, shared in any public domain, or sold by a student or other third party, without prior written consent of the faculty member.
- **Any** work submitted by a student for grades, including the online quizzes, must be the **student's own work**.

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

This applies to ALL components of the grade, including quizzes and other class work, as well as the tests and exam. Computer-marked multiple-choice quizzes, 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 seek approval for the absence as soon as possible. Approval can be granted either through a self-reporting of absence or via the Dean's Office/Academic Counselling unit of your Home Faculty. For approval from Academic Counselling, you must provide valid medical or other supporting documentation *to your Dean's Office as soon as possible*. And in either case you must contact *your instructor immediately*, as soon as you know that you will be unable to complete the required work. 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. For further information, please consult the university's policy on academic consideration for student absences:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf.

A student who needs a makeup for an Online Quiz should email the instructor, stating the reason for missing the quiz, as soon as possible after the quiz window closes. Please note that no makeups will be allowed for Quiz 6.

For students who receive Academic Consideration for a Term Test and are unable to write the makeup test, the weight of that test will be shifted to the final exam. Students who need to be accommodated for the test due to a timetable conflict should contact Academic Counselling, and contact the Instructor to make alternate arrangements.

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam). You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

SUPPORT SERVICES

Office of the Registrar

UWO <http://www.registrar.uwo.ca>

Brescia <http://brescia.uwo.ca/academics/registrar-services/>

Huron <http://www.huronuc.on.ca/CurrentStudents/StudentLifeandSupportServices/AcademicResources>

Student Development Services <http://www.sdc.uwo.ca/>

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

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

Academic Calendar <http://www.westerncalendar.uwo.ca/>

WTS <http://www.uwo.ca/wts/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/>