

THE UNIVERSITY OF WESTERN ONTARIO
DEPARTMENT OF MATHEMATICS

Mathematics 1229B
Methods of Matrix Algebra

Main Campus and Brescia Sections
January - April 2021

INSTRUCTORS:

650 - A. O'Hara; 651 - A. Ghorbanpour; 530 - A. O'Hara; *(See Instructor Contact Information on next page.)*

TEXTBOOK:

Custom Edition of **Elementary Linear Algebra** by **S. Venit, W. Bishop and J. Brown**, published by Nelson Education Ltd., ISBN: 0176559299

(The printed text is available from the UWO Book Store. An e-version is also available, but must be ordered directly from the publisher. Information about how to order is on the course OWL site.)

PREREQUISITES:

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

ANTIREQUISITES:

Applied Mathematics 1411A/B, 2811B, Mathematics 1600A/B, 2120A/B, 2155F/G, 2211A/B.

COURSE OUTLINE:

Vectors in \mathbb{R}^m ; Equations of lines and planes; Linear Equations; Solution of Linear Systems; Matrix Algebra; Matrix Multiplication and Inverses; Determinants.

COURSE WEB SITE:

Various useful supplemental materials, such as required extra homework problems, practice tests, and solutions to the homework exercises, are posted on the OWL web site. In addition, there are forums on which students may post questions. Important information will be posted on OWL. 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?

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. It is up to the student to seek out help when needed. The student is responsible for being aware of **all** relevant announcements and information posted on their section's OWL site.

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.

Note: Any email sent to an instructor (and especially to the course coordinator) **MUST say Math 1229A in the subject line**. Any email without this, and/or any email sent from other than a UWO email address, may be deleted unread.

EVALUATION OF STUDENT PERFORMANCE:

Students will be assessed on the basis of Classwork, 2 Term Tests, and a Final Exam.

· For all classes, at least part of the Classwork component consists of Online Quizzes. These quizzes are completed in OWL. See the Quiz Schedule and Quiz Information documents posted on the Course Information page on the site. For information about exactly how the Classwork component will be assessed for your class, see your class OWL 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 announced 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 an alternative time.

- Tests and examinations in this course will be conducted using the remote proctoring service, 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>.
- 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 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 student's best 5 of the 6 Online Quizzes will each count equally in the 10%, and the Final Exam will count for 40%. The remaining 10% weight will be section-specific and your individual instructor will detail the specifics of how this portion of the grade is earned.

Notes:

1. The 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 tests and exams.**
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.

INSTRUCTOR CONTACT INFORMATION:

- A. O'Hara (650 and 530): aohara@uwo.ca
- A. Ghorbanpour (651): aghorba@uwo.ca

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, tutorials, or office hours 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 should 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

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 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, 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 to write the test.

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>

King's

<http://www.kings.uwo.ca/academics/academic-deans-office/>

Student Development Services

<http://www.sdc.uwo.ca/>

Learning Skills Services

<http://sdc.uwo.ca/learning/>

USC

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

Academic Calendar

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

WTS

<https://wts.uwo.ca/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/>