

MATH 1228 Course Outline

1. Course Information

Course Information

This course is Math 1228, section 200. The lecture material is presented online, asynchronously through OWL. There are six in-person tutorial sections, 002, 003, 004, 005, 006, and 007. The purpose of the tutorials is to emphasize material presented in the lectures and to help prepare students for the course assessments.

Section	Time	Room	Instructor
002	Monday 3:30-4:30pm	FNB-1250	O'Hara
003	Wednesday 3:30-4:30pm	FNB-1250	O'Hara
004	Friday 3:30-4:30pm	NCB-117	O'Hara
005	Tuesday 7-8pm	NCB-114	So
006	Tuesday 8-9pm	NCB-114	So
007	Thursday 7-8pm	NCB-114	So

List of Prerequisites: One or more of Ontario Secondary School MCV4U, MHF4U, MDM4U, Mathematics 0110A/B, 1225A/B, 1229A/B.

Antirequisites: Mathematics 2124A/B, 2155F/G, Statistical Sciences 2035, 2141A/B, 2857A/B.

Unless you have either the requisites for this course or written special permission from your Dean's Designate (Department/Program Counsellors and Science Academic Counselling) 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.

2. Instructor Information

Instructors	Email	Office
Prof. A. O'Hara (Course Coordinator)	aohara@uwo.ca	MC 113
Dr. T. So	tso28@uwo.ca	MC 134

Students must use their Western (@uwo.ca) email addresses when contacting their instructors, and the subject line **MUST** contain 1228A or the e-mail may be disregarded.

Office hours for each individual instructor will be posted by said instructor on the OWL site for the course.

3. Course Syllabus, Schedule, Delivery Mode

Math 1228 (Methods of Finite Mathematics) covers: techniques of counting, probability, discrete and continuous random variables. Students are expected to demonstrate an understanding of these concepts and an ability to apply them in solving a variety of problems.

This is a blended course. All students are registered in section 200 and also in one of the tutorial sections. Tutorials, taught by the course Instructors, meet once per week. Students are expected to have made every effort to have learned the material for the week, from the resources provided, before attending the tutorial.

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 information posted on the OWL web site.

In the event of a COVID19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all 1 remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any remaining assessments will also be conducted online as determined by the course coordinator.

Learning Outcomes

A successful student in this course will be able to:

1. Set up counting tree diagrams from given information and use those trees to calculate unknown set sizes.
2. Break down complicated counting problems into simpler calculations corresponding to the individual counting techniques presented in the course.
3. Apply their understanding of conditional probability to create and work with probability trees.
4. Recognize and calculate probabilities related to repeated independent trials.
5. Calculate mean, variance, and standard deviations for random variables.
6. Use normal approximation to answer questions about discrete random variables using normal random variables.

4. Course Materials

The material for this course will be presented online through the course OWL site, found at: <http://owl.uwo.ca>. Students are responsible for checking the course OWL site on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

A (required) custom textbook is posted (free) on the course OWL site. Note: It is not an e-book, just pdf files.

If students need assistance with the course OWL site, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800

Technical Requirements

Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for any relevant services.

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Assessment	Weight	Notes
Quizzes	10% (total)	Only the best 5 of the 6 quizzes count
Term Test 1	20%	Covers Chapter 1. Friday Oct. 13 7-8:30pm
Term Test 2	20%	Covers Chapter 1, Friday Nov. 10 7-8:30pm
Final Exam	40%	Cumulative. The date will be published by the registrar.
Bonus*	10%	The best of the three tests gets additional weight

Students will be assessed on the basis of online quizzes, two term tests, and a final exam. The quizzes are completed in OWL. See the Quiz Schedule and Quiz Information posted on the Course Information page on the course site in OWL. The 2 Term Tests are each 90 minutes in length. Test 1 will cover Chapter 1 of the textbook, while Test 2 will cover (only) Chapter 2 (but Chapter 1 material comes up in the context of Chapter 2).

The Final Exam, 3 hours in length and covering all course material, will be scheduled by the Registrar's Office during the December Exam Period. Tests and examinations in this course will be in-person and handwritten on paper, if possible. In-person tests/exam will have some multiple choice and some written-answer questions. Total 25 marks for each Term Test and 50 marks for the Final Exam.

Each Term Test will count for 20%, the student's best 5 of the 6 Online Quizzes will each count for 2%, for a total of 10% and the Final Exam will count for 40%.

*The remaining 10% weight will be assigned to whichever of the three tests/exams (Test 1, Test 2, Final Exam) is the student's best mark.

Your mark in the course will be the mark that you earn based on your demonstrated understanding of the course content, assessed using the outlined criteria. Extra credit assignments are not available, and assessments cannot be rewritten to obtain a higher mark. So, students are encouraged to take the course material and the methods of assessment seriously.

6. Student Absences

If you are unable to meet a course requirement due to illness or other serious circumstances, please follow the procedures below.

Assessments worth less than 10% of the overall course grade:

Absences from Quizzes: 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. (No other approval required.) Please note that there will be no makeups for Quiz 6. In the event of a Quiz 6 makeup, the assessment will be reweighted onto the final exam.

Assessments worth 10% or more of the overall course grade:

For work totalling 10% or more of the final course grade, you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible. For further information, please consult the University's medical illness policy at

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

The Student Medical Certificate is available at

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

Absences from Term Tests: Students who require a makeup for either of the term tests must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible. For further information, please consult the University's medical illness policy at

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

The Student Medical Certificate is available at

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

Students who submit documentation and obtain an Accommodation from an Academic Counselor will be eligible to write a makeup for the term tests. These makeup exams will be scheduled for the week following the original term test. If the accommodation persists past the makeup dates, the weight of the missed term test will be shifted to the final exam.

Absences from Final Examinations

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (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" (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under Special Examinations).

Note: missed work can *only* be excused through one of the mechanisms above. Being asked not to attend an in-person course requirement due to potential COVID-19 symptoms is **not** sufficient on its own.

6. Accommodation and Accessibility

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

[https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic Accommodation_disabilities.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf).

7. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

Class Policies: All students are expected to engage 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.

NO calculators or other electronic devices or any other aids are allowed on tests and exams. Any work submitted by a student for grades must be the student's own work.

In The Event that Tests/Exams Cannot be Held In-Person: If, at some point during the course, it becomes not possible to hold scheduled in-person tests, then any remaining tests and examinations will be conducted online, using a remote proctoring service. 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, including technical requirements, is available on Western's Remote Proctoring website at: <https://remoteproctoring.uwo.ca>. Any test or exam which is being conducted online will consist of only multiple choice questions. The date, time, coverage and weight of the test/exam is not expected to be affected by this change.

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy, https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

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.

8. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at

http://academicsupport.uwo.ca/accessible_education/index.html

if you have any questions regarding accommodations.

Learning-skills counsellors at the Student Development Centre (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time

management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Additional student-run support services are offered by the USC, <https://westernusc.ca/services/>.