

The University of Western Ontario  
Department of Mathematics

## MATH 2124A - Introduction to Mathematical Problems Fall 2020 – First Version

**Time and location:** Tu 12:30 – 14:30 and Th 13:30 – 14:30, online via OWL and Zoom.

**Prerequisites:** Calculus 1501A/B or Applied Mathematics 1413, with a minimum mark of 60%, or Calculus 1301A/B with a minimum mark of 85% or permission of the instructor.

Unless you have either the requisites 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.

**Instructor:** Martin Pinsonnault

**Office:** MC 132

**Online Office Hours:** via Zoom, schedule TBA

**Preferred communication mode:** By email at [mpinson@uwo.ca](mailto:mpinson@uwo.ca). *Students must use their UWO (@uwo.ca) email addresses when contacting their instructors and must include “MATH2124” in the title of their emails.*

**Course outline:** Primarily for Mathematics students, but will interest other students with ability in and curiosity about mathematics in the modern world as well as in the past. Stresses development of students’ abilities to solve problems and construct proofs. Topics will be selected from: counting, recurrence, induction; number theory; graph theory; parity, symmetry; geometry.

**Course website:** All course material will be posted to OWL (<http://owl.uwo.ca>). This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis for news and updates.

**Delivery mode:** Synchronous and asynchronous online via OWL, Zoom, and Gradescope.

**Technical requirements:** Students must have:

- a reliable internet connection (300 kbps download & 250 kbps upload or better);
- a computer that is compatible with online learning and testing system requirements (OWL, Zoom, Gradescope, and SageMath (CoCalc)). UWO computer requirements include:
  - Operating system: MAC: OSX Yosemite 10.10.5 or higher, PC: Windows 7, 8, or higher
  - Processor/Ram: MAC: Intel / AMD Processor, 2 GB RAM, PC: Dual-core 2.4 Ghz CPU, 2 GB RAM or better
  - Web Browsers: Mozilla Firefox v20.0 or Higher Google Chrome v25.0 or higher

- a working microphone and webcam,
- a scanning device (a cell phone with a proper scanning app may do, but a flatbed scanner is best).

**Evaluation:** The evaluation will be based on:

- Regular assignments and online quizzes: 40%;
- Two online midterms: 15% + 15%; Tentative dates: October 13 and November 10. Note that these dates must be approved by the Office of the Registrar.
- A final online examination: 30%. During the examination period. The exact date will be set by the Office of the Registrar.

We will use OWL and the “Gradescope” online grading system to handle assignments and exams. More information about Gradescope will be available on OWL.

**Excused absences:** There will be NO make-up examinations. Missed examinations with proper justification will be removed from the final grade calculation and other components will be reweighted accordingly, A 0 mark will be given for any missed examination without proper justification (see the Academic Consideration for Student Absence below).

**Late assignments:** 5% will be taken off for each day after the due date. No assignment will be accepted more than 5 days after the deadline.

**Accommodation and Accessibility:** Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at: [https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/AcademicAccommodation\\_disabilities.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/AcademicAccommodation_disabilities.pdf)

**Academic Consideration for Student Absence:** Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student’s final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student’s final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are not met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see: [https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/Academic\\_Consideration\\_for\\_absences.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf) and for the Student Medical Certificate (SMC), see: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

**Religious Accommodation:** Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar: <https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>

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](http://www.registrar.uwo.ca/examinations/exam_schedule.html)).

**Academic Policies:** The website for Registrarial Services is <http://www.registrar.uwo.ca>. In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, 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 his/her official university address is attended to in a timely manner.

All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

**Scholastic 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](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

Tests and examinations in this course will be conducted using Zoom and Gradescope. You will be required to keep your camera on for the entire session, hold up your student card for identification purposes, and share your screen with the invigilator if asked to do so at any time during the exam. The exam session will not be recorded. Please note that Zoom servers are located outside Canada. If you would prefer to use only your first name or a nickname to login to Zoom, please provide this information to the instructor in advance of the test or examination. More information about the use of Zoom for exam invigilation is available in the Online Proctoring Guidelines at the following link: <https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>

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

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 Student Accessibility Services (SAS) at (519) 661-2147 if you have any questions regarding accommodations.

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, see <https://www.uwo.ca/se/digital/>.

Learning-skills counsellors at the Student Development Centre at <http://www.sdc.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.

Students who are in emotional/mental distress should refer to Mental Health@Western, see [http://www.health.uwo.ca/mental\\_health](http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help.

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

**Key sessional dates – Fall 2020:**

- Sept. 09      Classes begin
- Sept. 17      Last day to add a full course or first-term half course
- Oct. 12      Thanksgiving (University closed)
- Nov. 02–08    Fall Reading Week
- Nov. 09      Date by which students in a first-term half course must receive assessment for work totaling 15% of their final grade
- Nov. 12      Last day to withdraw from a first-term half course without academic penalty
- Dec. 09      Last day of classes in Fall Term
- Dec. 10      Study Day
- Dec. 11–22    December examination period

See <https://www.westerncalendar.uwo.ca/SessionalDates.cfm> for a complete list of sessional dates.