

Math 2122B Real Analysis I

- Math 2122B-001: Lectures on Tuesdays and Thursdays from 1:30-2:30 held online via Zoom.
- Math 2122-002: Tutorials on Tuesdays from 2:30-3:30 held in person in 3M-3250. (In-person tutorials will be held online via Zoom at least until January 25.)
- Math 2122-003: Tutorials on Thursdays from 2:30-3:30 held in person in 3M-3250. (In-person tutorials will be held online via Zoom at least until January 25.)
- Prerequisites: Calculus 1501A/B or Applied Mathematics 1413, with a minimum mark of 60%, or Calculus 1301A/B with a minimum mark of 85%.
- Description: A rigorous introduction to analysis on the real line. Sets and functions, logic and mathematical proof, the natural and real numbers, completeness and its consequences, limits of sequences, limits of real functions, continuity and uniform continuity.
- Dates: Lectures from Jan. 12 to Apr. 8, tutorials from Jan. 19 to Apr. 8, none on Feb 16 and 18.

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 Gord Sinnamon

- Professor, Department of Mathematics, sinnamon@uwo.ca, 519-661-2111 ext. 86535.
- Drop-in office hours held via zoom – times to be determined.

Course Materials and Technical Requirements

- Textbook: *Real Analysis, Foundations and Functions of One Variable* by Laczkovich and Sos, published by Springer. Available free online from the Western library.
- Occasional additional course material will be provided online via OWL.
- Students are responsible for checking OWL on a regular basis. This is the primary method by which information will be disseminated to all students in the class.
- Technical Requirement: Reliable internet connection.
- Technical Requirement: Device to use email, OWL and Zoom.
- Technical Requirement: Device to produce an electronic copy of handwritten work.

If students need assistance, 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.

Evaluation

The overall course grade will be calculated as listed below:

Written Assignments (6)	18%	Due Jan 26, Feb 2, Feb 16, Mar 2, Mar 16, Mar 23
In-Person Quizzes (3)	42%	Section 002: Feb 9, Mar 9, Mar 30 (tutorial time and room) Section 003: Feb 11, Mar 11, Apr 1 (tutorial time and room)
In-Person Final Exam	40%	To be scheduled by the registrar

Accommodated Evaluations If academic accommodation for an assignment is granted by a student's faculty counsellor, then that student's mark for that assignment will be replaced by the average mark on that student's other assignments. If academic accommodation for a quiz is granted by a student's faculty counsellor, then that student's mark for that quiz will be replaced by the average mark on that student's other quizzes, there will be no makeups for missed quizzes.

Accommodation Policies 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/Academic_Accommodation_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

and for the Student Medical Certificate (SMC), see 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>

Multiple Exams 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).

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

Email 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.

Contingency plan for an in-person class pivoting to 100% online learning In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all 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 instructor.

Some of the remote learning sessions for this course may 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 may 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.

Recording 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 are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, from http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Zoom for Tests Tests and examinations in this course may be conducted using Zoom. You may 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.* 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>

* 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.

Internet Completion of this course will require you to have a reliable internet connection and a device that meets the system requirements for Zoom. Information about the system requirements are available at the following link: <https://support.zoom.us/hc/en-us>

Academic Counselling Please visit the Academic Counselling webpage of your Faculty for information on add/drop, academic considerations for absences, appeals, exam conflicts, and many other academic related matters.

Accessibility 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.

DSE 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/>.

SDC Learning-skills counsellors at the Student Development Centre (<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.

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

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