

Mathematics 2122B Course Outline

1. Course Information

Course Information

Real Analysis I (Math 2122B), Winter 2025

Lectures: see the timetable

Tutorials: see the timetable

List of Prerequisites

A minimum mark of 60% in one of Calculus 1501A/B, or Numerical and Mathematical Methods 1414A/B (the former Applied Mathematics 1414A/B, or the former Applied Mathematics 1413), or a minimum mark of 85% in Calculus 1301A/B. Integrated Science 1001X with a minimum mark of 60% can be used in place of Calculus 1301A/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	Phone	Office Hours
Dr. Janusz Adamus	jadamus@uwo.ca	MC-122	ex.86525	In person, weekly times TBA
TA: TBA				

Students must use their Western (@uwo.ca) email addresses when contacting their instructors.

3. Course Syllabus, Schedule, Delivery Mode

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.

Lectures and tutorials will be held in-person, according to the above mentioned schedule.

Key Sessional Dates

Classes begin: January 6, 2025

Reading Week: February 17 – 21, 2025

Classes end: April 4, 2025

Exam period: April 7 – 30, 2025

4. Course Materials

Required Textbook: The course will be based largely, but not exclusively, on the following book *Real Analysis, Foundations and Functions of One Variable*, by Laczkovich and Sos, publ. Springer.

Available free online from Western Libraries at

https://ocul-uwo.primo.exlibrisgroup.com/permalink/01OCUL_UWO/r0c2m8/alma991044362118605163

Course Website: <https://www.math.uwo.ca/faculty/adamus/teaching/2122B2025/>

Students are responsible for checking the above course website 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.

All course material will be also available via OWL: <https://westernu.brightspace.com/>.

If students need assistance with the course OWL site, they can seek support on the OWL Brightspace 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

The homework for this course will be submitted through an online platform *Gradescope*. Students are thus required to have access to software that allows for scanning and uploading their written work.

In the unlikely event of the course switching to online delivery mode, the students will be expected to have a stable internet connection and access to a computer with working microphone and webcam.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be based on 6 bi-weekly written assignments, 2 midterm exams (approx. 100 min. each) held in class, and the final exam, with the following weights:

Written Assignments (6)	24% (4% each)
Midterm Tests (2)	36% (18% each)
Final Exam	40%

The tentative deadlines of written assignments are Jan.18, Feb.1, Feb.14, Mar.8, Mar.22, and Apr.4.

The **midterm exams** will be held on **Thursday, Feb.6** and **Thursday, Mar.13, 2025**.

Final exam TBA by the Registrar.

General information about missed coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs* posted on the Academic Calendar:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf,

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage:

https://registrar.uwo.ca/academics/academic_considerations/

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

All Academic Consideration requests must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this course. However, the following assessments are excluded from this, and therefore always require formal supporting documentation:

- **Examinations scheduled during official examination periods** (Defined by policy)

When a student *mistakenly* submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above, the request cannot be recalled and reapplied. This privilege is forfeited.

Evaluation Scheme for Missed Assessments

Missing an evaluation component will result in a grade of zero unless appropriate permission is sought and granted.

Late Assignments: Unless an academic consideration is granted, 10% will be taken off for each day after a due date. No assignment will be accepted more than 5 days after the due date.

Missed Assignments: Students who are granted an academic consideration for a missing assignment will get the other components of their evaluation reweighted. For example, if only one written assignment (4%) is missing, the course grade will be computed out of 96 instead of 100.

Missed Midterm: Students who are granted an academic consideration will get a make-up midterm exam. The tentative dates of make-up midterms are Saturday, Feb.15 (Test 1) and Saturday, Mar.15 (Test 2). Students who are granted an academic consideration and who are not able to complete the scheduled make-up will get their evaluation reweighted. For example, if only one midterm (18%) is missing, the course grade will be computed out of 82 instead of 100.

When a student misses the Final Exam and their Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup Final Exam). See the Academic Calendar for details (under [Special Examinations](#)), especially for those who miss multiple final exams within one examination period.

6. Additional Statements

Religious Accommodation

When conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible but not later than two weeks prior to the writing or the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays:

<https://www.edi.uwo.ca>.

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.

Academic Policies

The website for Registrar Services is <https://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.

Calculators, phones or any other electronic devices will not be permitted on tests and exams.

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:

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

Support Services

Please visit the Science & Basic Medical Sciences Academic Advising 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.

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