

# **Mathematics 3122A** Course Outline

## 1. Course Information

**Course Information** 

Mathematics 3122A Real Analysis II, September-December 2022

Math 3122A-001: In-person Lectures Monday, Wednesday and Friday 2:30-3:30 in MC 10?.

Math 3122A-002: In-person Tutorials one hour per week to be scheduled in class.

**List of Prerequisites** 

Prerequisites: Mathematics 2122A/B with a minimum mark of 60%.

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.

## 2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
Gord Sinnamon	sinnamon@uwo.ca	MC 103e	86535	tba

Office hours will be held in-person in MC 103e, times to be determined in consultation with the class.

# 3. Course Syllabus, Schedule, Delivery Mode

Description: Differentiation, the Mean Value Theorem, and integration. Metric spaces, including topology, convergence, compactness, completeness, and connectedness. Uniform convergence of functions. Selected additional topics.

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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, affected 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.

### 4. Course Materials

Textbook: Metric Spaces, by Satish Shirali and Harkrishan L. Vasudeva. It is a free download via Western Libraries. Go to https://ocul-

uwo.primo.exlibrisgroup.com/permalink/01OCUL\_UWO/r0c2m8/alma991044362896205163 and click on Springer English/International eBooks 2006 - Full Set.

Optional extra textbook: Metric Spaces, by Mícheál Ó Searcóid. It is a free download via Western Libraries. Go to https://ocul-

uwo.primo.exlibrisgroup.com/permalink/01OCUL\_UWO/r0c2m8/alma991044361629705163 and click on Springer English/International eBooks 2007 - Full Set.

Occasional additional course material will be provided online via OWL.

Students are responsible for checking the course OWL site (http://owl.uwo.ca) 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 posted to OWL: http://owl.uwo.ca.

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.

### 5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Written Assignments (7)
In-class Quizzes (4)
Final Exam

21%
Due Sep 21, Sep 28, Oct 12, Oct 19, Nov 9, Nov 16, and Nov 30
In Tutorials for weeks Sep 19-23, Oct 3-7, Oct 24-28, Nov 21-25
To be scheduled by the registrar

To request a one-week extension of the due date for an assignment, contact the instructor. This is not an academic accommodation.

## 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:

Contact your instructor first. If academic accommodation for up to three missed assignments is granted by the course instructor or a faculty counsellor, then your mark for those assignments will be replaced by the average mark on your other assignments. If academic accommodation for one quiz is granted by the course instructor or a faculty counsellor, then your mark for that quiz will be replaced by the average mark on your other quizzes, there will be no makeups for missed quizzes.

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

For work totaling 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/accommodation\_medical.pdf.

The Student Medical Certificate is available at

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/medicalform.pdf.

If academic accommodation for more than three missed assignments is granted by a faculty counsellor, then each other assignment will count for 5% and the excess assignment mark will be assigned to the final exam. If academic accommodation for more than one missed quiz is granted by a faculty counsellor, then each other quiz will count for 15% and the excess quiz mark will be assigned to the final exam. There will be no makeups for missed quizzes.

#### **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).

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.

## 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.

#### No electronic devices will be permitted on quizzes 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:

http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/scholastic\_discipline\_undergrad.pdf.

In the event that in-person quizzes and examination are prohibited, tests and examinations in this course will be conducted 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**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

https://remoteproctoring.uwo.ca.

# 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/.