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University of Western Ontario
Department of Mathematics
Mathematics 3122A - Real Analysis II
September-December 2019

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INSTRUCTOR: Rasul Shafikov, shafikov@uwo.ca, MC 112. Emails will be answered within 24 hours. Office Hours TBA.

COORDINATES: Lectures: MC 108 MWF 9.30 - 10.30 AM; Tutorial: MC 108 Th 11.30 AM - 12.30 PM.

COURSE WEB PAGE: http://shafikov.ca/rasul/teaching/fall2019/3122/

TEXTBOOK: Metric Spaces, by Shirali and Vasudeva, Springer-Verlag, London, 2006. There is a free download from the Western Library: At http://alpha.lib.uwo.ca/record=b4473300 You will have to login to use the proxy server if you are off campus.

ADDITIONAL TEXTBOOK: Real Analysis: Foundations and Functions of One Variable, by Miklós Laczkovich, Vera T. Sós. There is a free download from the Western Library (login required): http://alpha.lib.uwo.ca/record=b6643255 You will have to login to use the proxy server if you are off campus.

PREREQUISITES: Mathematics 2122A/B or the former Mathematics 2123A/B, each with a minimum mark of 60%.

COURSE OUTLINE: Differentiation and the Mean Value Theorem. Integration and the Fundamental Theorem of Calculus. Metric spaces, including topology, convergence, compactness, completeness, and connectedness. Uniform convergence of functions. Selected additional topics.

EXAMS: There will be two in class midterms: **October 18** and **November 15**. Please mark these dates in your calendar. The final exam will be scheduled by the Registrar office.

WHAT IS EXPECTED OF THE STUDENT: Students are expected to attend all lectures and complete all tests, assignments, and examinations. No aids are permitted in tests and examinations. Regular homework is an essential part of the course; it is the student's responsibility to keep up with the assigned homework and to seek additional help if and when it is needed.

EVALUATION OF STUDENT PERFORMANCE: Midterms & Assignments - 60%; Final Examination - 40%. No calculators or other electronic devices or any other aids are allowed on tests and exams.

SENATE POLICY ON PREREQUISITES: 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.

STATEMENT ON ACADEMIC OFFENCES: Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

ABSENCE OR MISSED WORK: If you are unable to meet a course requirement due to illness consult the Policy on Accommodation for Medical Illness - Undergraduate. If you are unable to meet a course requirement due to other serious circumstances, contact your instructor immediately.

SUPPORT SERVICES: Registrars: Main Campus, Brescia, Huron, King's; Student Development Centre; University Students' Council; Academic Calendar; Information Technology Services (ITS). Students who are in emotional/mental distress should refer to Mental Health Western for a complete list of options about how to obtain help.

ADDITIONAL COURSE POLICIES: Please consult the following page for additional information https://www.math.uwo.ca/undergraduate/2019-20_math_common_course_policies.html