

Western University Department of Mathematics

## Mathematics 2122B - Real Analysis I

January - April 2018

**INSTRUCTOR:** [Gord Sinnamon](#)

**TEXTBOOK:** Real Analysis, Foundations and Functions of One Variable, by Laczkovich and Sos, Springer, New York 2015. This is a free download from Western Library: At <http://alpha.lib.uwo.ca/record=b6643255> follow the "Real Analysis Foundations and Functions of One Variable -- Springer e-books" link. You will have to log in to use the proxy server if you are off campus.

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

**COURSE OUTLINE:** 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.

**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:** Tests & 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.