

The University of Western Ontario (Western University)

**Mathematics 1120B, Winter 2018**  
**Fundamental Concepts in Mathematics**

January–April 2018

**LECTURES:** MWF 1:30-2:20 pm, in **TC-343** (Prof. Barron, tatyana.barron@uwo.ca)

**TEXTBOOK:** *Proofs and fundamentals: a first course in abstract mathematics, 2nd edition* by E. Bloch, published by Springer, 2011. Available online through the UWO library website.

**PREREQUISITES:** Ontario MCV4U or Mathematics 1600A/B.

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.

**ANTIREQUISITES:** Mathematics 2155F/G, the former Mathematics 2155A/B.

**COURSE DESCRIPTION:** Primarily for students interested in pursuing a degree in one of the mathematical sciences. Logic, set theory, relations, functions and operations, careful study of the integers, discussion of the real and complex numbers, polynomials, and infinite sets.

Mathematics 1120B is an introduction to rigorous mathematical thinking. The main purpose of the course is to teach students to understand mathematical reasoning and write mathematical proofs. There will be regular homework assignments to help the students acquire information and develop the required analytical skills. There will also be some discussion of applications as time permits.

**WHAT IS EXPECTED OF THE STUDENT:** Students are expected to attend all lectures, complete all assignments and write all examinations. Solutions of collected homework problems must be written neatly, and handed in by the deadline. Late assignments will not be accepted.

**EVALUATION OF STUDENT PERFORMANCE:**

assignments 40%

two one-hour, in-class, midterm exams (the dates are to be announced) 10% each

final exam (3 hours, to be scheduled by the Registrar's office) 40%

**COURSE WEBPAGE:** course information will be available on the owl website.

## **ACCOMMODATION AND ACCESSIBILITY:**

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at [scibmsac@uwo.ca](mailto:scibmsac@uwo.ca)

Academic consideration forms for the Faculty of Science are available at [http://www.uwo.ca/sci/undergraduate/academic\\_counselling/forms.html](http://www.uwo.ca/sci/undergraduate/academic_counselling/forms.html)

For further information, please consult the university's medical illness policy at [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf)

Approval of accommodation for any course component worth 10% or more can only be made by the student's Dean's Office/Academic Counselling unit. Accommodation for work worth less than 10% needs to be discussed with the instructor, and the student may be referred to the student's Dean's Office/Academic Counselling unit.

It is the student's responsibility to make alternative arrangements with the instructor, once the accommodation has been approved and the instructor has been informed.

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam). Course instructors are not able to grant permission for a student to miss or re-schedule a final examination. Students who have missed or plan to miss a final examination should contact an academic counsellor at their home Faculty Dean's office.

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](http://www.registrar.uwo.ca/examinations/exam_schedule.html) ).

## **ACADEMIC POLICIES:**

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

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.

The use of calculators and other electronic devices will **not** be permitted on the examinations.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

## **SUPPORT SERVICES:**

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 Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

The policy on Accommodation for Students with Disabilities can be found here:

[www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_disabilities.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_disabilities.pdf)

The policy on Accommodation for Religious Holidays can be found here:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_religious.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf)

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.

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

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