

Math 4123A/9023A: Rings and Modules, Fall 2017

Please check this page regularly for updates and announcements.

The first class is on Friday, September 8, 2017, and will be a regular class.

Section 1

Instructor: Nicole Lemire
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Office Hours: TBA
Class times: MWF 10:30-11:30
Class location: MC 108

Text: *Abstract Algebra, Third Edition*, by David S. Dummit, and Richard M. Foote, published by John Wiley and Sons, Inc.

Prerequisites: Math 3020A/B or equivalent.

Course outline:

Rings: fractions and localization, Chinese Remainder Theorem, factorization in commutative rings, Euclidean algorithm, PIDs, algebraic integers, polynomials and formal power series, factorization in polynomial rings; Modules: generation, direct products and sums, freeness, presentations, tensor algebras, exact sequences, projectivity, injectivity, Hom and duality, Zorn's Lemma, chain conditions, modules over PIDs.

The course material corresponds to Chapters 7, 8, 9, 10 and 12, of the text, plus some additional topics.

Link to [UWO course calendar](#).

Evaluation of Student Performance (for Math 4123A):

Assignments: 30%
Midterm Examination: 30%
Final Examination: 40%

Evaluation of Student Performance (for Math 9023A):

Assignments: 25%
Midterm Examination: 25%
Presentation: 10%
Final Examination: 40%

There will be 6 or 7 [assignments](#). They are due **at the beginning of class**. Click [here](#) for a list of exercises and the procedures for handing in homework. The lowest (or missing) assignment grade will be dropped when computing the course grade. The assignments are to be thought of as **take-home exams** and should be done entirely **on your own**. Refer to the Section below on Academic Offences for more information.

Midterm Information:

The date of the **midterm exam** will be determined soon.

Final Exam Information

The date for the **final exam** will be determined soon.

Senate Policy On Prerequisites

Prerequisite checking is the student's responsibility. Unless you have either the prerequisites 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, at http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf or http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf

Absence/ Missed Work

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to your Dean's office **as soon as possible** and contact your instructor **immediately**. It is the student's responsibility to make alternative arrangements with his or her instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information concerning UWO's Policy on Accommodation for Medical Illness please refer to this policy at: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf.

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found here: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform_15JUN.pdf.

Make-up exams and conflicts

If you know ahead of time that you are unable to attend a midterm or final exam, you must let your instructor know at least **two weeks in advance** so alternative arrangements can be made. See also the [University's policy on final exam conflicts](#).

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific questions regarding an accommodation.

Support Services

1. Office of the Registrar: <http://www.registrar.uwo.ca>
2. Student Development Services: <http://www.sdc.uwo.ca>
3. Learning Skills Services: <http://www.sdc.uwo.ca/learning>
4. USC: <http://westernusc.ca/services>
5. Academic Calendar: <http://www.westerncalendar.uwo.ca>
6. ITS: <http://www.uwo.ca/its/helpdesk>
7. Students who are in emotional/mental distress should refer to Mental Health@Western for a complete list of options about how to obtain help. http://www.health.uwo.ca/mental_health

Please check the [exercises page](#) and the [course web page](#) regularly for announcements and other information.