Department of Mathematics

Western Science

Contact Us

The Department of
Mathematics
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Math 3120B Winter 2020

Instructor Info:

Nicole Lemire, nlemire@uwo.ca, MC 103C.

Please use your UWO email address when sending an email to the instructor.

Lecture Info:

MWF 11:30-12:30pm, MC 107.

Textbook:

There is no required text. However, it is strongly recommended that you use a text as a resource and a source of additional practice problems.

The following text is in the bookstore:

Abstract Algebra, a first course, by Dan Saracino, 2nd edition, published by Waveland Press.

These texts are strongly recommended:

Abstract Algebra, 3rd edition, by David S. Dummit and Richard M. Foote, published by Wiley.

Groups and Symmetry, 2nd printing, by M.A. Anderson, Undergraduate Texts in Mathematics, published by Springer.

Prerequisites:

Mathematics 3020A/B (recommended); or Mathematics 1600A/B and one of the following: Mathematics 1120A/B, Mathematics 2120A/B, Mathematics 2124A/B, Mathematics 2155F, or Applied Mathematics 2811A/B.

Course Description:

An introduction to the theory of groups: cyclic, dihedral, symmetric, alternating; subgroups, quotient groups, homomorphisms, cosets, Lagrange's theorem, isomorphism theorems; group actions, class equation, p-groups, Sylow theorems; direct and semidirect products, wreath products, finite abelian groups; Jordan-Hölder theorem, commutator subgroup, solvable and nilpotent groups; free groups, generators and relations.

Course Website:

All students are responsible to be aware of information, assignments, materials and grades posted at the OWL course site: https://www.owl.uwo.ca/portal.

What is Expected of the Student:

Students should attend all classes, make a serious effort to understand all course material and do all the assigned work. The student must assume responsibility for any missed classes. It is up to the student to seek out help when needed. Students are expected to keep up with the the material of the course by reading and learning definitions, theorems and results, and doing additional practice problems. A fundamental component of the course is to **prove** mathematical theorems.

Evaluation of Student Performance:

Final Exam: (40%) *cumulative, to be scheduled by the Registrar's Office.*

Midterm Exam: (35%) *Date to be announced.*

Assignments : (25%) *information about assignments will be available on OWL.*

Note: Electronic devices (including cell phones, and calculators) are NOT allowed on exams and may be confiscated.

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.

Accommodation and Accessibility:

If you are unable to meet a course requirement due to illness or other serious circumstances, you must seek approval for the absence as soon as possible. Approval can be granted either through a self-reporting of absence or via the Dean's Office/Academic Counselling unit of your Home Faculty. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in NCB 280, and can be contacted at scibmsac@uwo.ca.

For further information, please consult the university's policy on academic consid-eration for student absences: https://www.uwo.ca/univsec/pdf/academic_policies/ appeals/Academic_Consideration_for_absences.pdf.

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).

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).

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.

Students must use their Western (@uwo.ca) email addresses when contacting their instructors.

Electronic devices (including cell phones and calculators) are NOT allowed on exams and may be confiscated.

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.

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 Student Accessibility Services (SAS) at 661-2147 if you have any questions regarding accommodations.

The policy on Accommodation for Students with Disabilities can be found here: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic%20Accommodation_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.

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) 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.

Acknowledgment of the Science Student Donation Fund:

Mathematics undergrad courses are supported by the Science Student Donation Fund. If you are a BSc or BMSc student registered in the Faculty of Science or Schulich School of Medicine and Dentistry, you pay the Science Student Donation Fee. This fee contributes to the Science Student Donation Fund, which is administered by the Science Students' Council (SSC). One or more grants from the Fund have allowed for the purchase of equipment integral to teaching this course. You may opt out of the Fee by the end of September of each academic year by completing the online form linked from the Faculty of Science's Academic Counselling site. For further information on the process of awarding grants from the Fund or how these grants have benefitted undergraduate education in this course, consult the Chair of the Department or email the Science Students' Council at ssc@uwo.ca.

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