

# Faculty of Science Course Syllabus Department of Mathematics & Statistics

## MATH 3032 Topics in Abstract Algebra Winter 2017

**Instructor:** Professor Sara Faridi (faridi@mathstat.dal.ca)

Office: Chase 314

**Lectures**: MWF 2:35 - 3:25 in Chase 227

Office Hours: Tuesdays 10 - 11 am, Wednesdays 1 - 2 pm, and by appointment in Chase 314

Website: <a href="http://mathstat.dal.ca/~faridi/teaching/3032.html">http://mathstat.dal.ca/~faridi/teaching/3032.html</a>

**Course Description:** Rings, fields, integral domains, Fermat's theorem, Euler's theorem, ideals, quotient rings, prime and maximal ideals, factorization of polynomials, Grobner bases, Unique Factorization

Domains, Euclidean Domains and Gaussian integers, and applications as time allows.

Course Prerequisites: MATH 3031

Required Course Material: A first course in abstract algebra, seventh edition, by John B. Fraleigh

#### **Course Assessment:**

Component	Weight (% of final grade)	Date
Midterm exam	25%	Wednesday March 1, in class
Final exam	50%	Scheduled by Registrar
<b>Assignments</b>	25%	Weekly or biweekly

**Course Policies:** Homework will be assigned almost every week. All or some problems on each assignment will be graded. Homework is due at the beginning of class. Late homework counts as zero, but at the end of the term the two lowest homework grades for each student will be dropped.

Practice problems are assigned during each class and the solutions will be discussed at the beginning of the next class. Students are expected to participate in these discussions.

A missed exam counts as zero unless a doctor's note is presented or prior arrangements have been made with me. Calculators, textbooks, and notes are not allowed in exams.

**Course Content:** We will be covering chapters 4, 5, 9 of the text. After that, as time allows we will do homology groups, following Chapter 8, or topics from commutative algebra.

Conversion of numerical grades to Final Letter Grades follows the <u>Dalhousie Common Grade Scale</u>

**A**+ (90-100) **B**+ (77-79) **C**+ (65-69) **D** (50-54) **A** (85-89) **B** (73-76) **C** (60-64) **F** (<50)

**A-** (80-84) **B-** (70-72) **C-** (55-59)



### **ACCOMMODATION POLICY FOR STUDENTS**

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic protected under Canadian Human Rights legislation. **Student Accommodation Policy:** <a href="http://www.dal.ca/campus\_life/student\_services/academic-support/accessibility.html">http://www.dal.ca/campus\_life/student\_services/academic-support/accessibility.html</a>

Students who require accommodation for classroom participation or the writing of tests and exams should make their request to the **Advising and Access Services Centre (AASC)** prior to or at the outset of the regular academic year. More information and the **Request for Accommodation** form are available at <a href="https://www.dal.ca/access">www.dal.ca/access</a>.

#### **ACADEMIC INTEGRITY**

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. It is the responsibility of all students to be familiar with behaviours and practices associated with academic integrity. Instructors are required to forward any suspected cases of plagiarism or other forms of academic cheating to the Academic Integrity Officer for their Faculty.

Policy on Intellectual Honesty and Faculty Discipline Process:

https://www.dal.ca/dept/university\_secretariat/academic-integrity.html

#### STUDENT CODE OF CONDUCT

Dalhousie University has a student code of conduct, and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course. <a href="http://www.dal.ca/dept/university">http://www.dal.ca/dept/university</a> secretariat/policies/student-life/code-of-student-conduct.html

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## **SERVICES AVAILABLE TO STUDENTS**

The following campus services are available to <u>all Dalhousie students</u>. Unless noted otherwise, the services are <u>free</u>.

Service	Support Provided	Location	Contact
General Academic Advising	Help with - understanding degree requirements and academic regulations - choosing your major - achieving your educational or career goals - dealing with academic or other difficulties	Killam Library Ground floor Rm G28 Bissett Centre for Academic Success	In person: Killam Library Rm G28 By appointment: - e-mail: advising@dal.ca - Phone: (902) 494-3077 - Book online through MyDal
Dalhousie Libraries	Help to find books and articles for assignments Help with citing sources in the text of your paper and preparation of bibliography	Killam Library Ground floor Librarian offices	In person: Service Point (Ground floor)  By appointment: Identify your subject librarian (URL below) and contact by email or phone to arrange a time: <a href="http://dal.beta.libguides.com/sb.php?subject_id=34328">http://dal.beta.libguides.com/sb.php?subject_id=34328</a>
Studying for Success (SFS)	Help to develop essential study skills through small group workshops or one-on-one coaching sessions  Match to a tutor for help in course-specific content (for a reasonable fee)	Killam Library 3 <sup>rd</sup> floor Coordinator Rm 3104 Study Coaches Rm 3103	To make an appointment:  - Visit main office (Killam Library main floor, Rm G28)  - Call (902) 494-3077  - e-mail Coordinator at: sfs@dal.ca or  - Drop in to see us during posted office hours  All information can be found on our website:  www.dal.ca/sfs
Writing Centre	Meet with a tutor to discuss writing assignments (lab report, research paper, thesis, poster) - Learn to integrate source material into your own work appropriately - Learn about disciplinary writing from a peer or staff member in your field	Killam Library Ground floor Learning Commons & Rm G25	To make an appointment:  - Visit the Writing Centre in the Killam Learning Commons (Rm G40) and book an appointment  - Call (902) 494-1963  - e-mail writingcentre@dal.ca  - Book online through MyDal We are open six days a week See our website: writingcentre.dal.ca