

MATH 4045/5045: ADVANCED ALGEBRA I
FALL 2009

Time & Location: Mondays, Wednesdays & Fridays 1:35–2:25 pm in Chase 227.

Instructor: Sara Faridi

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Office Hours: Mondays & Wednesdays 11–12 am.

Course Website: Information about the course will be occasionally updated on the following website:

<http://www.mathstat.dal.ca/~faridi/teaching/5045/index.html>

Text: *Abstract Algebra* by Dummit & Foote.

Course Overview: Euclidean rings, Principal ideal domains, Unique factorization domains, Polynomial rings, Gröbner bases. Modules, classification of modules over PIDs, Jordan and rational canonical forms, tensor products of modules. If time allows, we will cover other topics as well.

Homework: There will be regular homework assignments throughout the semester. The frequency depends on how fast we progress through a topic.

Midterm: Monday November 2 in class.

Grading: Your final grade for the course will be based 30% on your homework, 30% on your midterm, and 40% on your final exam.

Undergraduate Students: The number of problems on each problem set as well as the midterm is reduced for undergraduate students.

Students with disabilities: Students with disabilities are encouraged to register as quickly as possible at the Student Accessibility Services if they wish to receive academic accommodations. To do so please phone 494-2836, email access@dal.ca or drop in at the new Mark A. Hill Accessibility Centre. You can also visit their website www.studentaccessibility.dal.ca. Students are also reminded that, for your convenience, all forms are now available on this website.

Disclaimer: Changes to the course outline and evaluation scheme may include but are not limited to:

- Adjustments to course assignments;
- Changes to the dates of exams;
- Arrangements for alternative evaluations for students affected by H1N1 influenza virus;

Any alternative plan made in individual courses may be superseded by University-wide or Government measures to reduce the spread of the pandemic H1N1 influenza virus.