



DALHOUSIE  
UNIVERSITY

Faculty of Science Course Syllabus  
Department of Mathematics & Statistics

MATH 4055 Advanced Algebra II  
Winter 2018

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

**Office:** Chase 314

**Lectures:** Tuesdays, Thursdays, and Fridays 11:35 am-12:25 pm in Chase 319

**Office Hours:** Tuesdays 12:30 – 1:30 pm & Fridays 9:30-10:30 am in Chase 314

**Website:** <http://mathstat.dal.ca/~faridi/teaching/5055.html>

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**Course Description:** Field theory, field extensions, Galois theory and applications. Time allowing, other topics may include multilinear algebra and representation theory.

**Course Prerequisites:** MATH 3032

**Course Material:** I will be mostly using “Algebra” by Thomas Hungerford, as well as Lang’s “Algebra”, and Dummit and Foote’s “Abstract Algebra”. Please talk to me if you need to borrow copies of these books.

**Course Assessment:**

Component	Weight (% of final grade)	Date
Midterm exam	25%	Thursday February 15, in class
Final exam	50%	TBD
Assignments	25%	Weekly or biweekly

**Course Policies:** Homework will be assigned at the end of each topic. 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.

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 Chapter 5 of Hungerford’s “Algebra”, which covers (algebraic) field extensions, Galois Theory and applications. If time allows, we will continue into Chapter 6 and discuss transcendental field extensions.

**Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale**

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:**

[http://www.dal.ca/campus\\_life/student\\_services/academic-support/accessibility.html](http://www.dal.ca/campus_life/student_services/academic-support/accessibility.html)

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 [www.dal.ca/access](http://www.dal.ca/access).

## **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](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.

[http://www.dal.ca/dept/university\\_secretariat/policies/student-life/code-of-student-conduct.html](http://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html)

## **COPYRIGHT**

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## SERVICES AVAILABLE TO STUDENTS

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

Service	Support Provided	Location	Contact
<b>General Academic Advising</b>	Help with <ul style="list-style-type: none"> <li>- understanding degree requirements and academic regulations</li> <li>- choosing your major</li> <li>- achieving your educational or career goals</li> <li>- dealing with academic or other difficulties</li> </ul>	<b>Killam Library Ground floor</b> Rm G28 <i>Bissett Centre for Academic Success</i>	In person: Killam Library Rm G28 By appointment: <ul style="list-style-type: none"> <li>- e-mail: <a href="mailto:advising@dal.ca">advising@dal.ca</a></li> <li>- Phone: (902) 494-3077</li> <li>- Book online through MyDal</li> </ul>
<b>Dalhousie Libraries</b>	Help to find books and articles for assignments Help with citing sources in the text of your paper and preparation of bibliography	<b>Killam Library Ground floor</b>  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>
<b>Studying for Success (SFS)</b>	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)	<b>Killam Library 3<sup>rd</sup> floor</b>  Coordinator Rm 3104 Study Coaches Rm 3103	To make an appointment: <ul style="list-style-type: none"> <li>- Visit main office (Killam Library main floor, Rm G28)</li> <li>- Call (902) 494-3077</li> <li>- e-mail Coordinator at: <a href="mailto:sfs@dal.ca">sfs@dal.ca</a> or</li> <li>- Drop in to see us during posted office hours</li> </ul> <b>All information can be found on our website: <a href="http://www.dal.ca/sfs">www.dal.ca/sfs</a></b>
<b>Writing Centre</b>	Meet with a tutor to discuss writing assignments (lab report, research paper, thesis, poster) <ul style="list-style-type: none"> <li>- Learn to integrate source material into your own work appropriately</li> <li>- Learn about disciplinary writing from a peer or staff member in your field</li> </ul>	<b>Killam Library Ground floor</b> Learning Commons & Rm G25	To make an appointment: <ul style="list-style-type: none"> <li>- Visit the Writing Centre in the Killam Learning Commons (Rm G40) and book an appointment</li> <li>- Call (902) 494-1963</li> <li>- e-mail <a href="mailto:writingcentre@dal.ca">writingcentre@dal.ca</a></li> <li>- Book online through MyDal</li> </ul> We are open six days a week <b>See our website: <a href="http://writingcentre.dal.ca">writingcentre.dal.ca</a></b>