

MAS 5311—ABSTRACT ALGEBRA I (GRV III)

FALL 2012

INSTRUCTOR: Dr. Ettore Aldrovandi.

OFFICE: 215 LOV.

OFFICE HOURS: Listed at the instructor's web page.

COURSE WEB PAGE:

<http://www.math.fsu.edu/~ealdrov/courses/2012/fall/MAS5311/www/index.html>

Schedule. Class will meet on Monday, Wednesday, Friday 1:25–2:15 PM in 200 LOV.

Prerequisites. MAS 5308, or permission by the instructor.

Text. The main reference will be:

Paolo Aluffi, *Algebra: Chapter 0*, Graduate Studies in Mathematics, Volume 104, American Mathematical Society.

Additional references, very well worth consulting, are:

Serge Lang, *Algebra*, Fourth Ed., Springer

Charles Weibel, *An introduction to Homological Algebra*, Cambridge University Press.

Many other possibilities exist, and students are encouraged to make appropriate use of the University Libraries and online resources.

Course Content. The topics to be covered, relative to Aluffi's book, are roughly as follows:

- Fields (Extensions, Galois theory)
- Multilinear Algebra
- Homological Algebra

Course Objectives. The course focuses on advanced aspects of algebra. This course is the third part of a three semesters-long sequence, hence you can expect to encounter many new topics, even if this is not your first algebra course.

Attendance. Students are expected to attend class regularly. A student absent from class bears the full responsibility for all subject matter and information discussed in class. (See however below for more details about our global University Attendance Policy.)

Grading. Your grading will be determined by your performance in homework, two midterm exams, and a final exam, roughly in equal measure.

Cutoff points for A, B, C, etc. will be in the vicinity of 85%, 70%, 55%, etc., but I reserve the right to make adjustments if necessary to consider such imponderable factors as class participation, attendance, etc. Same applies to plus and minuses, with the following special provision: the "bin" for the "A" grade will be treated somewhat more strictly. A score greater or equal than 85% will certainly guarantee an A-, however to gain an "A" you must achieve a score solidly falling in the 90% range. "Solid" means as close as possible to 95%.

Homework. Homework problems will usually be assigned by posting on the course web page, and (more rarely) by in-class communication. Thus it is your responsibility to check the web page for an up-to-date list of assigned problems.

Not all problems will be collected for grading, *but some of them will*, and students are expected to honor the relative return dates. Which problems are collected, and the corresponding dates to turn them in will be posted on the web page.

Students are expected to work out problems as part of their study routine, regardless of whether the problems are graded. An effort will be made to discuss some problems in class (not those collected for grading), in order to illustrate the material. Therefore it is reasonable to expect that students actively participate in these discussions.

Exams. There will be two midterm and a final exam. *Tentative* dates for the midterms are:

- September 28;
- November 9.

The **final exam** is replaced by a **take-home** exam.

University Attendance Policy. Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holidays, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy. The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and ...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://dof.fsu.edu/honorpolicy.htm>.)

Americans With Disabilities Act. Students with disabilities needing academic accommodation should:

1. register with and provide documentation to the Student Disability Resource Center; and
2. bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the: Student Disability Resource Center

874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdr@admin.fsu.edu
<http://www.disabilitycenter.fsu.edu/>

Syllabus Change Policy. "Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice."