

COURSES

RESEARCH

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# SYLLABUS MAS 4301 FALL 2023

This syllabus is subject to change. Created Friday, August 11, 2023. Updated .....

## TENTATIVE VERSION UNDER CONSTRUCTION

Section	Period	Meeting Time	Room
09B1	MWF 5th	11:45am – 12:35pm	LIT 235

### Dr. Frank Garvan

408 Little Hall  
(352) 294-2305  
fgarvan@ufl.edu

### Office Hours

TO BE DETERMINED

### Prerequisites

Grade of B or better in MAS 3300 or MHF 3202, or  
a grade of C or better in MAS 4105.

### Textbook

*Contemporary Abstract Algebra*, 9th Edition, by Joe Gallian.

### Course Description

MAS 4301 is a 3 credit course on Abstract Algebra which focuses mainly on group theory and ring theory. Topics include sets and mappings, groups and subgroups, homomorphisms and isomorphisms, permutations, rings and domains, arithmetic properties of domains, and fields. This course requires facility in writing proofs.

### Course Objectives and Goals:

For the student to master the definitions and theory of groups and rings.

For the student to write clear and logical proofs.

### Tentative Weekly Course Schedule

WEEK 1: Preliminaries  
 WEEK 2: Groups  
 WEEK 3: Finite Groups and Subgroups  
 WEEK 4: Cyclic Groups  
 WEEK 5: Permutation Groups  
 WEEK 6: Isomorphisms  
 WEEK 7: Cosets and Lagrange's Theorem  
 WEEK 8: EXAM 1; External Direct Product  
 WEEK 9: Normal Subgroups and Factor Groups  
 WEEK 10: Group Homomorphisms  
 WEEK 11: Fundamental Theorem of Finite Abelian Groups  
 WEEK 12: Rings  
 WEEK 13: Integral Domains  
 WEEKS 14 and 15: Ideals  
 WEEK 16: EXAM 2

### Assessment

Assessment will be based on the following

Daily Quizzes	5%
Weekly 20 min Quizzes	35%
Exam 1	30%
Exam 2	30%

Short quizzes will be given each day (starting in Week 2). The lowest 3 will be dropped. There will be a Weekly 20 minute quiz each week starting in Week 2. Weekly quizzes will be based on homework.

### Makeup Exams

Makeup exams (documentation required) will be given during the time reserved for a final exam.

### In Class Exams

Exam 1: Wednesday, October 11

Exam 2: Monday, December 4

### Grading

Grading scale: A 90%; A- 87%; B+ 83%; B 80%; B- 77%; C+ 73%; C 67%; D 60%

### Attendance

Attendance counts as part of each Daily Quiz.

### Make-up quizzes

3 daily quizzes dropped. 2 weekly quizzes dropped. Proper documentation required.

### UF Grading Policies

See [THIS LINK](#)

### Accommodations for students with disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Getting Started with the Disability Resource Center](#)  
It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### Online course evaluation process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results>.