

ALGEBRA I

Course Information

- **Course:** Math 7210
- **Text:** David Dummit and Richard Foote, Abstract Algebra, 3rd Edition, John Wiley and Sons, 2003.
- **Classroom:** 132 Lockett Hall
- **Time:** 10:30 - 11:20 pm MWF

Instructor Information

- **Instructor:** Dr. Ling Long
- **Office:** 256 Lockett Hall
- **Office Hours:** MWF 9-10:20 am, or by appointment
- **Phone:** 578-1654
- **email:** llong@lsu.edu

Course Description

This is the first semester of the first year graduate algebra sequence, and covers the material required for the Comprehensive Exam in Algebra (see <https://www.math.lsu.edu/grad/pastcomps>). Topics will include group actions and Sylow Theorems, finitely generated abelian groups, rings and modules, PIDs, UFDs, finitely generated modules over a PID, applications to Jordan canonical form, and exact sequences.

Grade The final grade will be weighted 70% for homework and 30% for the final exam (**Friday Dec. 8, 10am-12pm**).

Grading Scale

A+	97+	A	93-97	A-	90-93	
B+	87-90	B	83-87	B-	80-83	
C+	77-80	C	73-77	C-	70-73	
D+	67-70	D	63-67	D-	60-63	F 0-59

Homework will be posted at **moodle**. Each homework problem will be graded on a 10 point scale. The following guidelines will be adopted for assigning points.

10 points: The problem has to be completed. The presentation or proofs should be written in grammatically correct sentences, which can include mathematical symbols. Mathematical notations should be correctly used. The reasoning should be correct and it should be clearly explained to the reader.

8 or 9 points: The answer should demonstrate a good understanding of the problem, and the problem is completed with minor errors, which should not make the answer implausible.

6 or 7 points: Most of the problem has been completed correctly but some error made in the answer is not minor. Some help is probably needed before another such problem can be completed correctly.

4 or 5 points: Some part of the problem has been correctly done.

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Collaboration: You are encouraged to discuss with your classmates for examples and homework problems. However, please write down your own solutions for the homework problems independently. Work on the final exam must be your own work with no assistance from anyone else.