Marshall University
Syllabus
MTH 450

Course Title/Number	MTH 450 (CRN: 3097) *Modern Algebra I*
Semester/Year	Fall 2015
Days/Time	MWF 3:00–3:50 PM
Location	Smith Hall 514
Instructor	Dr. Elizabeth Niese
Office	Smith Hall 721
Phone	(304)696-3609
Email	niese@marshall.edu Please include your name and subject line MTH 450/550 in your email.
Office/Hours	**Mondays& Wednesdays 11:00 AM - 12:00 PM, Tuesdays & Thursdays 9:30 AM - 11:00 AM, Fridays by appointment only** To make an appointment, please email 24 hours in advance when possible.
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to http://www.marshall.edu/academic-affairs and clicking on "Marshall University Policies. Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: Structure of the abstract mathematical systems; groups, rings, fields, with illustrations and applications from number theory. (PR: MTH300 and MTH331.)

Course Student Learning Outcomes:	**How students will practice each outcome:**	**How student achievement of each outcome will be assessed**
Students will be able to write clear, concise, formal proofs of results from mathematical analysis.	Students will complete weekly problem sets and participate in boardwork in class, low-stakes writing assignments, and students will engage in peer review of written and oral explanations of concepts.	Students' understanding will be assessed by two midterm exams and a proof portfolio.
Students will be able to devise techniques to solve particular problems as they arise.	Students will complete weekly homework assignments and participate in boardwork in class.	Students will be assessed by two midterm exams and a proof portfolio.

Required Course Materials:

- **Textbook:** *A First Course in Abstract Algebra, 7th Ed.* by John B. Fraleigh
- ***MUOnline:*** Assignments, announcements, and other course materials will be posted regularly on MUOnline.

Course Requirements:

- **Reading Assignments:** There will be 1-2 reading assignments given each week. The assignment will be checked the following class period.
- **Homework:** Homework will be assigned once or twice a week and will be posted on MUOnline. Late homework assignments are not accepted, except in extenuating circumstances or University-approved absences.
- **Tests:** There will be two midterm exams during the semester. If you know in advance that you will have an excused absence on a test date, please make arrangements to take the test early. Tentative test dates are: October 2, November 13
- **Proof Portfolio:** Throughout the semester you will complete many proofs as part of homework assignments, classwork, and exams. The proof portfolio will be an opportunity for you to showcase your proof-writing. The first half of the assignment will be due **October 16** and the full portfolio will be due during final exam week by **December 9**. Details of the assignment will be given during class and posted at MUOnline.

Grading Policy:
Your final course grade will be calculated as follows:

Reading:	15%
Homework:	35%
Midterm Exams:	30% (15% per exam)
Proof Portfolio:	20%

$> 90\%$	**A**
$80\% - 89\%$	**B**
$70\% - 79\%$	**C**
$60\% - 69\%$	**D**
$< 60\%$	**F**

Attendance Policy:
Attendance at all scheduled class times is expected. Make-up tests will only be given in the event of an excused absence. If you know in advance that you will be absent, please make arrangements to take the test early if possible. If you are ill and cannot make it to class, it is courteous to send me an email notifying me. You are responsible for all material missed and should try to get a copy of a classmate's notes.

Tentative Schedule:

Week 1:	Sections 0-4
Week 2:	Sections 4-6
Week 3:	Sections 7-8
Week 4:	Sections 8-9
Week 5:	Sections 10-11
Week 6:	Test 1
Week 7:	Sections 11-13
Week 8:	Sections 14-15
Week 9:	Sections 15-16
Week 10:	Sections 16-17
Week 11:	Section 18
Week 12:	Test 2
Week 13:	Sections 18-19
Week 14:	Sections 19-20
Week 15:	Review