Math 4441/6441: Modern Algebra I — Fall 2014  
(Section 005, CRN 80548/80556)  
3:00–4:15pm Monday and Wednesday @ 601 Langdale Hall

Instructor: Yongwei Yao  
Office: 766 COE (College of Education)  
Email: yyao@gsu.edu  
Phone: (404)413-6454 (office)

Lecture: 3:00–4:15pm Monday and Wednesday @ 601 Langdale Hall.

Office Hours: 4:30–5:30pm Monday and Wednesday (at 766 COE); Or by appointment.

Alternative textbook: Abstract Algebra (third edition) by I. N. Herstein, John Wiley & Sons, Inc.. Chapters 1, 2, 3.  

Prerequisites: Math 3000 and Math 3435 each with a grade of C or higher. During the first two weeks of the semester the Department of Mathematics and Statistics checks the computer records to determine whether or not each student has met the prerequisites for this course. If you do not have the prerequisites please inform your instructor and change to another course. In case the system finds that you don’t have the prerequisites, you need to drop this course.

Course content/outcome: The course offers a solid introduction to group theory covering its most basic concepts. The course emphasizes the understanding of the concepts, through examples and proof writing. The course will study algebraic structures through an axiomatic approach. In particular, the course covers the definition of groups, permutations, subgroups, homomorphisms, normal subgroups, and factor groups. Students passing the course will be able to present proofs, understand the majors results as well as apply them in solving routine exercises.

Homework: There will be weekly homework assignments that will be graded. You may discuss the problems with your classmates, but the write-up of the solutions has to be done individually according to your own understanding. Identical solutions will not be graded. The assignments and the exams for Math 6441 will be more involved than the ones for Math 4441.

Show your work/steps. No late homework is accepted.

Homework weighs 25% of your overall performance.

Exams: There will be two midterm exams and a final exam, all held at 601 Langdale Hall (LH).

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam I</td>
<td>Oct. 01 (Wednesday), 2014</td>
<td>3:00–4:15pm</td>
<td>601 LH</td>
<td>25%</td>
</tr>
<tr>
<td>Midterm Exam II</td>
<td>Nov. 05 (Wednesday), 2014</td>
<td>3:00–4:15pm</td>
<td>601 LH</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Dec. 15 (Monday), 2014</td>
<td>1:30–4:00pm</td>
<td>601 LH</td>
<td>25%</td>
</tr>
</tbody>
</table>

All three exams are required and the final exam is cumulative. Make-up exams will only be allowed in case of extreme emergencies that must be documented, such as medical emergencies. It is the instructor’s role to determine if a specific excuse is a valid one.

(more on the next page)
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Grading Scheme: First the total scores are computed by using the weights as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Homework</th>
<th>Midterm Exam I</th>
<th>Midterm Exam II</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Then the letter grades will be assigned as follows:

<table>
<thead>
<tr>
<th>Score (%)</th>
<th>97—</th>
<th>93–96</th>
<th>90–92</th>
<th>87–89</th>
<th>83–86</th>
<th>80–82</th>
<th>77–79</th>
<th>70–76</th>
<th>60–69</th>
<th>0–59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>A+</td>
<td>A</td>
<td>A−</td>
<td>B+</td>
<td>B</td>
<td>B−</td>
<td>C+</td>
<td>C</td>
<td>D</td>
<td>F</td>
</tr>
</tbody>
</table>

Attendance: You are expected to attend regularly for the entire period of the class. That is, you are expected to arrive on time and stay for the duration of the class. Attendance will be taken periodically. If you miss all the classes during the first two weeks, you will be administratively withdrawn. After five or more absences a student can be withdrawn from this class. In case of an absence, the student is responsible for knowing all the materials covered. For university policies, see [http://codeofconduct.gsu.edu/](http://codeofconduct.gsu.edu/)

Important withdrawal dates: Remember that a student who misses all the lectures during the first two weeks can be withdrawn by the instructor.

Last day to add/drop classes: Friday, August 29, 2014, 5:00 pm. You may do this at GoSolar.  
Last day to withdraw and possibly receive a W: Tuesday, October 14, 2014.  
For details, see [http://advisement.gsu.edu/self-service/policies/withdrawal-policy/](http://advisement.gsu.edu/self-service/policies/withdrawal-policy/)

Disruptive behavior: Any disruptive behavior will be handled according to the University’s policy on disruptive behavior found at the following site [http://codeofconduct.gsu.edu/](http://codeofconduct.gsu.edu/)  
This includes the possibility of withdrawing the student from the class.

Academic (dis)honesty: Academic honesty is expected. Cheating will not be tolerated and will be handled according to the University’s policy on academic honesty found at [http://codeofconduct.gsu.edu/](http://codeofconduct.gsu.edu/) which includes academic as well as disciplinary penalties.

Teaching evaluations: Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation.

Disability: Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.

Other Important dates:
- Labor Day (no classes) September 1 (Monday), 2014
- Thanksgiving (no classes) November 24–29, 2014
- Last Day of Classes December 8 (Monday), 2014

Changes: This course syllabus provides a general plan for the course; deviations may be necessary.

Course URL: [http://www2.gsu.edu/~matyxy/2014F/math4(6)441.html](http://www2.gsu.edu/~matyxy/2014F/math4(6)441.html)  
Relevant information (homework assignments, etc.) will be posted there as the course progresses.

Welcome aboard!