Math 4441/6441: Modern Algebra I — Spring 2010
(Section 005, CRN 16007/16008)
7:15–8:30pm @ 403 General Classroom Building (GCB), Tuesday and Thursday

Instructor: Yongwei Yao
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Office: 766 COE (College of Education)
Phone: (404)413-6454 (office)

Lecture: 7:15–8:30pm @ 403 General Classroom Building (GCB), Tuesday and Thursday.

Office Hours: 4:00–5:00pm Tuesday and Thursday (at 766 COE). Or by appointment.


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

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. If you miss all the classes during the first two weeks, you will be administratively withdrawn.

Homework: There will be weekly homework assignments that will be graded. You can 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 as well as 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 403 GCB.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Exam</td>
<td>Feb. 23 (Tuesday), 2010</td>
<td>7:15–8:30pm</td>
<td>403 GCB</td>
<td>25%</td>
</tr>
<tr>
<td>Second Exam</td>
<td>April 06 (Tuesday), 2010</td>
<td>7:15–8:30pm</td>
<td>403 GCB</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>May 04 (Tuesday), 2010</td>
<td>7:15–9:15pm</td>
<td>403 GCB</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 emergency 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>First Exam</th>
<th>Second Exam</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>overall 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>90–96</th>
<th>87–89</th>
<th>80–86</th>
<th>77–79</th>
<th>70–76</th>
<th>60–69</th>
<th>0–59</th>
</tr>
</thead>
<tbody>
<tr>
<td>letter grade</td>
<td>A+</td>
<td>A</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. 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. See page 64, item 1334 in [http://www.gsu.edu/images/Downloadables/Undergrad_06-07_catalog.pdf](http://www.gsu.edu/images/Downloadables/Undergrad_06-07_catalog.pdf)

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 drop a class with full refund: January 15, Friday. You may do this at [GoSolar](http://www.gsu.edu/es/withdrawals.html).

Last day to withdraw from term length classes and possibly receive a W: March 01, Monday.

For information about withdrawals, see [http://www.gsu.edu/es/withdrawals.html](http://www.gsu.edu/es/withdrawals.html)

Disruptive behavior: Any disruptive behavior will be handled according to the University’s policy on disruptive behavior found at the following site

[http://www2.gsu.edu/~wwdoso/codeofconduct_adminpol_a.html](http://www2.gsu.edu/~wwdoso/codeofconduct_adminpol_a.html)

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://www.gsu.edu/~wwdoso/codeofconduct_conpol.html](http://www.gsu.edu/~wwdoso/codeofconduct_conpol.html)

which includes academic as well as disciplinary penalties.

Other Important dates:
- Martin Luther King Holiday: Jan. 18 (Monday), 2010
- Spring Break: March 08–14, 2010
- Last Day of Classes: May 03 (Monday), 2010

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

Course URL: [http://www2.gsu.edu/~matyxy/2010Sp/math4(6)441.html](http://www2.gsu.edu/~matyxy/2010Sp/math4(6)441.html)

Relevant information (homework assignments, etc.) will be posted there as the course progresses.

Welcome aboard!