Prerequisite: Grades of “C” or better in MATH 2390 and MATH 3260

Textbook: Abstract Algebra: Theory and Applications by Thomas W. Judson, available online (for free!) through the links posted at D2L.

Course Description
An introduction to the fundamental structures of abstract algebra (groups, rings, and fields), the connections of these structures with the algebra studied at the elementary level, and the historical development of modern algebra. The emphasis in this course is on groups. Emphasis will be given on writing rigorous proofs and solving problems to enhance understanding of theoretical concepts.

Learning Outcomes
Upon successfully completing this course, students will be able to:
1. classify groups in broad terms;
2. apply Lagrange’s Theorem to analyze the structure of groups; and
3. relate normal subgroups, homomorphisms, and factor groups.

The following is tentative daily plan.

<table>
<thead>
<tr>
<th>Day</th>
<th>Section</th>
<th>Class Schedule</th>
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</thead>
<tbody>
<tr>
<td>May 31</td>
<td>Guest lecture by Dr. Erik Westlund 1.2, 2.1</td>
<td>11:00 – 11:30 (problem discussion) 11:30 – 12:30 (lecture) 12:30 – 12:40 (break)</td>
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<tr>
<td>June 5</td>
<td>3.1, 3.2</td>
<td>12:40 – 01:45 (lecture + problem discussion)</td>
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<td>June 7</td>
<td>3.3</td>
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<td>June 12</td>
<td><strong>Hw#1 Due (1.3, 2.3)</strong> 4.1, 4.2</td>
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<td>June 14</td>
<td>5.1</td>
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<td>June 19</td>
<td><strong>Hw#2 Due (3.4, 4.4)</strong> 5.2</td>
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<td>June 21</td>
<td>6.1, Problem Discussion</td>
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<td>June 26</td>
<td><strong>Test 1</strong></td>
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<tr>
<td>June 28</td>
<td>6.2</td>
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<td>June 30</td>
<td>6.3 (conference travel)</td>
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<tr>
<td>July 3</td>
<td><strong>Hw#3 Due (5.3, 6.4)</strong> 9.1, 9.2</td>
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<tr>
<td>July 5</td>
<td>10.1, 10.2</td>
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<td>July 10</td>
<td><strong>Hw#4 Due (9.3, 10.3)</strong> 11.1</td>
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<td>July 12</td>
<td>11.2, Problems Discussion</td>
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<tr>
<td>July 17</td>
<td><strong>Test 2</strong></td>
<td></td>
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<tr>
<td>July 19</td>
<td>13.1</td>
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<tr>
<td>July 26</td>
<td><strong>Comprehensive Final Exam</strong></td>
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Class Schedule on Test Days
11:00 – 12:20 (Test) 12:20 – 12:25 (break) 12:25 – 01:45 (lecture + problem discussion)
Homework

Homework will be assigned from every section covered in class and be posted on D2L. These assignments will not be collected for grading. However, it is critical to your success on this course, like any other math course, that you complete all homework problems. **There will be four separate sets of homework assignments which will be collected and graded.** Problems will be added to these sets as the course progresses. The homework grades will heavily depend on the “degree” of correctness, neatness and completion of solutions. The assignments to be graded are due at the start of the class on due date.

You will be required to trust my judgment of using the following rubric for grading homework, tests and final exam:

- 100% credit for correct solutions with no errors and easily understandable reasoning;
- 90% credit for correct solutions, but the order of arguments does not quite flow which makes me struggle to understand;
- 80% credit for mostly correct with no “damaging” errors; but certainly needing fix.
- 70% credit for mostly correct, but needs to rewrite to get the flow of arguments because of “damaging” errors;
- 60% credit for moderately correct; at least the beginning is correct, but the argument loses its track later;
- No credit is warranted for incorrect, indecipherable and incomplete solutions.

Homework submission guidelines:

- All homework for grading should be stapled together (credit may be deducted if not).
- Email submissions are not accepted.
- Write your name legibly at the top of the first page.
- All problems must be clearly labeled.
- Homework is due at the beginning of the class; *Late homework submission will not be accepted under any circumstances.*
- From each graded homework sets, only selected problems will be graded, but you will be notified of the problems to be graded on the due dates after the homework are submitted.

Students are encouraged to collaborate on homework assignments. However, you are expected to write up your solutions independently. *If solutions are found identical to ones of your fellow classmates, you may receive no credit and may be considered having Academic Misconduct as defined under Code of Academic Integrity as briefed below.*

Academic Integrity Statement

Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section 5c of the Student Code of Conduct addresses the University’s policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to university materials, misrepresentation/falsification of university records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional issue of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an “informal” resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct’s minimum one semester suspension requirement. See also [http://scai.kennesaw.edu/codes.php](http://scai.kennesaw.edu/codes.php)
Grading System
Participation: 5%
Homework: 25%
Test 1: 35%
Test 2: 35%
Final Exam: 35% (The final exam is comprehensive.)

One of Test 1, Test 2 and Final Exam will be dropped.

All tests and final exam are closed book and closed notes. Make-up exams may only be allowed for a university approved excuse in writing. Wherever possible, you should inform me prior to missing an exam.

There will be no extra credit in this course, and therefore please do not ask for one.

Participation: Your class attendance will be recorded every day. Make sure you sign-in the attendance sheet that goes around the class.
There will be five participation points for each class day. The points will be based on
• your class attendance for the entire duration of class time;
• participating in course content related discussions erupted in class;
• refraining from unwarranted use of electronic devices (e.g. texting, surfing websites).

The participate grade for an unexcused absence will be a zero. Repeated use of electronic devices for purposes unrelated to the learning of the course will result in your participation grade of zero, and you will be asked to leave the classroom. Excused absences will not count against your participation grade. The two lowest participation grades will be dropped, and the remaining will be averaged to obtain the 5% participation grade for the term.

Grading Scale:
A for [90%, 100%), B for [80%, 90%), C for [70%, 80%), D for [60%, 70%), F for [0, 60%)

Student Disability Services
Any student with a documented disability needing academic adjustments is requested to notify the instructor as early in the semester as possible. Verification from KSU Student Disability Services is required. All discussions will remain confidential.

Class Attendance
Regular attendance is expected and will be recorded. There will be a class roll going around in class every day, and it is your responsibility to sign in. Missing a class can leave you a lot behind in the course and, in this case, you will be responsible for all announcements, class assignments and material presented in class. I will need to report the last day of attendance when submitting grades.

Classroom Behavior
All phones must be put in silence or turned off in the classroom. Music players should not be used for the duration of class. You are expected to arrive in class on time, be prepared for interactive learning, and not be disruptive during the class. You may be asked to leave the classroom for any misconduct or inappropriate behavior, and your participation point for the day will result in a zero.
The instructor of the course can make changes on the syllabus above if it is absolutely necessary to account for ineluctable circumstances. In such events, students will be notified of any changes ahead of time by the instructor.

Withdrawal
Students who find that they cannot continue in college for the entire semester after being enrolled, because of illness or any other reason, need to complete an online form. To completely or partially withdraw from classes at KSU, a student must withdraw online at http://www.kennesaw.edu, under Owl Express, Student Services.
The date the withdrawal is submitted online will be considered the official KSU withdrawal date which will be used in the calculation of any tuition refund or refund to Federal student aid and/or HOPE scholarship programs. It is advisable to print the final page of the withdrawal for your records. Withdrawals submitted online prior to midnight on the last day to withdraw without academic penalty will receive a “W” grade. Withdrawals after midnight will receive a “WF”. Failure to complete the online withdrawal process will produce no withdrawal from classes. Call the Registrar’s Office at 470-578-6200 during business hours if assistance is needed.

The date to withdraw without academic penalty for 8-week Summer Term, 2017 classes is Monday, June 26. Students who officially withdraw from courses before the last day to withdraw without academic penalty will receive a grade of “W” and receive no credit. Students who officially withdraw after the last day to withdraw without academic penalty and before the last three weeks of the semester or who have exceeded the maximum number of withdrawals will receive a grade of “WF,” which will be counted as an “F” in the calculation of their grade point average.

The only exceptions to these withdrawal regulations will be for instances involving unusual circumstances, which must be fully documented. Students may appeal to the Academic Standing Committee for consideration of unusual circumstances. Exact withdrawal dates are published in the official academic calendar. Students who simply stop attending classes without officially withdrawing usually are assigned failing grades. Students will receive refunds only when they withdraw from ALL their classes and only by the schedule outlined in the University System refund policy.