Abstract Algebra II: Math 5010
11:30-12:20 MWF in 105 MLH and 9:30-10:20 T in 218 MLH

Department of Mathematics: https://math.uiowa.edu/

Course ICON site: To access the course site, log into Iowa Courses Online (ICON) https://icon.uiowa.edu/index.shtml using your Hawk ID and password.

Course Home
The College of Liberal Arts and Sciences (CLAS) is the home of this course, and CLAS governs the policies and procedures for its courses. Graduate students, however, must adhere to the academic deadlines set by the Graduate College.

Instructors:
Ryan Kinser (Lecture) and Manny Albrizzio (Discussion)
Office location: 14A for Ryan and 225C MLH for Manny
Student drop-in hours: by appointment or any time door is open for Ryan
TBD for Manny
(Students are invited to drop by during these hours to discuss questions about the course material or concerns. I am also available by appointment if you are unable to attend my drop-in hours.)
Phone: (319) 335-0786
E-mail: ryan-kinser@uiowa.edu and manuel-albrizzio@uiowa.edu

DEO: Ryan Kinser, 14A MLH, ryan-kinser@uiowa.edu

Description of Course
Together with MATH:5010, a two-semester sequence in abstract algebra. Topics include groups and homomorphisms, Sylow Theorems, rings, finitely generated modules over a PID, Galois theory, vector spaces, linear transformations and matrices, canonical forms.

Learning Objectives
The objective of the course is to give students a foundation in two main areas of abstract algebra: Modules/Linear Algebra and Fields/Galois Theory. They should be prepared to take the Algebra Qualifying Exam after completing this and 5000.

Textbook/Materials
The required textbook(s) for this course are:

Academic Honesty and Misconduct
All students in CLAS courses are expected to abide by the CLAS Code of Academic Honesty. Undergraduate academic misconduct must be reported by instructors to CLAS according to these procedures. Graduate academic misconduct must be reported to the Graduate College according to Section F of the Graduate College Manual.

You may work with other students on understanding the general ideas of solutions to homework. In fact, being able to verbally communicate your questions and progress towards solutions is an important mathematical skill. However, the written solutions you turn in should be unique to each student, in your own words, and based on your personal understanding. You should not turn in something unless you can explain it in detail in front of the class. It is the student’s responsibility to understand what constitutes plagiarism or improper collaboration, and to ask Professor Kinser for any needed clarification.

Student Complaints
Students with a complaint about a grade or a related matter should first discuss the situation with the instructor and/or the course supervisor (if applicable), and finally with the Director or Chair of the school, department, or program offering the course.

Undergraduate students should contact CLAS Undergraduate Programs for support when the matter is not resolved at the previous level. Graduate students should contact the CLAS Associate Dean for Graduate Education and Outreach and Engagement when additional support is needed.

Drop Deadline for this Course
You may drop an individual course before the deadline; after this deadline you will need collegiate approval. You can look up the drop deadline for this course here. When you drop a course, a “W” will appear on your transcript. The mark of “W” is a neutral mark that does not affect your GPA. Directions for adding or dropping a course and other registration changes can be found on the Registrar’s website. Undergraduate students can find policies on dropping and withdrawing here. Graduate students should adhere to the academic deadlines and policies set by the Graduate College.

Grading System and the Use of +/-
Final grades will be awarded based on the following ranges:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Score</th>
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<tbody>
<tr>
<td>A</td>
<td>98-100</td>
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<tr>
<td>A+</td>
<td>93-97</td>
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<tr>
<td>A-</td>
<td>90-92</td>
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<tr>
<td>B+</td>
<td>87-89</td>
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<td>B</td>
<td>83-86</td>
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<tr>
<td>B-</td>
<td>80-82</td>
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<tr>
<td>C+</td>
<td>77-79</td>
</tr>
<tr>
<td>C</td>
<td>73-76</td>
</tr>
<tr>
<td>C-</td>
<td>70-72</td>
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<tr>
<td>D+</td>
<td>67-69</td>
</tr>
<tr>
<td>D</td>
<td>63-66</td>
</tr>
<tr>
<td>D-</td>
<td>60-62</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 59</td>
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</tbody>
</table>

Course Grades
Final course grades will be assessed based on your performance in the following activities:
Quizzes: There will be approximately 13 quizzes, worth 5 points each. The total of all quizzes is approximately 5% of the final grade. Both 4095 and 5010 students take the same quizzes.

Written homework: There will be approximately 10 homework assignments, worth 20 points per assignment. Assignments may include multiple parts. The total of all homework is approximately 20% of the final grade. The 5010 students will complete all assigned exercises, and the 4095 students will be required to complete only those exercises marked on the assignment page in ICON. The 4095 students still need to understand the statements of all exercises since they may be used later in the course.

Exams: There will be two exams during the semester before the final, worth 250 points each. Each of these is approximately 25% of the final grade. There will be a final exam worth 250 points. The final exam is approximately 25% of the final grade. The 5010 students will complete all parts of the exam, while the 4095 students will only be required to complete a subset of the exam problems.

Date and Time of the Final Exam
The final examination date and time will be announced by the Registrar generally by the fifth week of classes and it will be announced on the course ICON site once it is known. Do not plan your end of the semester travel plans until the final exam schedule is made public. It is your responsibility to know the date, time, and place of the final exam. According to Registrar’s final exam policy, students have a maximum of two weeks after the announced final exam schedule to request a change if an exam conflict exists or if a student has more than two exams in one day (see the policy here).

Calendar of Course Assignments and Exams
A detailed course calendar can be found on ICON under “Syllabus”.

College of Liberal Arts and Sciences (CLAS) Course Policies
Attendance and Absences
Students are expected to attend every class period, and are responsible for all information announced in class, including changes to the syllabus. Unexcused late homework and missed exams are not accepted. Any special circumstances should be discussed with the instructor as soon as possible. University regulations require that students be allowed to make up examinations which have been missed due to illness or other unavoidable circumstances. Students with mandatory religious obligations or UI authorized activities must discuss their absences with me as soon as possible. Religious obligations must be communicated within the first three weeks of classes.

Exam Policies

Communication: UI Email
Students are responsible for all official correspondences sent to their UI email address (uiowa.edu) and must use this address for any communication with instructors or staff in the UI community.

University Policies
Accommodations for Students with Disabilities
Basic Needs and Support for Students
Classroom Expectations
Exam Make-up Owing to Absence
Free Speech and Expression
Mental Health
Military Service Obligations
Non-discrimination
Religious Holy Days
Sexual Harassment/Misconduct and Supportive Measures
Sharing of Class Recordings