MATH 401 SYLLABUS

Instructor: Maxim Arap  
Course: MATH 401  
Office hours: M,W 2-3 and by appointment

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Course description

This is the first course in undergraduate abstract algebra. The highlights of MATH 401 are the following topics: (1) **Group theory**: groups and subgroups, fundamental homomorphism theorems for groups, examples of groups (cyclic, symmetric, alternating, dihedral, matrix groups), group actions, Sylow theorems; (2) **Ring theory**: rings and ideals, fundamental homomorphism theorems for rings, special rings (integral domains, PIDs, UFDs and Euclidean domains, polynomial rings).

Time and location

Lectures: Mondays and Wednesdays 12:00-1:15 PM in Gilman 119.  
Recitations: Fridays 12:00-12:50 PM in Gilman 119.

Textbook

ISBN-10: 1118135350  
*The aim is to cover chapters 1-5, 8 and other topics, time permitting.*

Grading policy

50 % Homework.  
20 % In class test. Tentative date: March 14, 2013.  
30 % Comprehensive final exam: 9-12 (noon) on Wednesday, May 15, 2013.

Attendance

Some lectures will contain material beyond what is covered in the textbook. Therefore, you are strongly advised to attend every class.

Additional references


**Academic Honesty**

Cheating is wrong. Cheating hurts our community by undermining academic integrity, creating mistrust, and fostering unfair competition. The university will punish cheaters with failure on an assignment, failure in a course, permanent transcript notation, suspension, and/or expulsion. Offenses may be reported to medical, law, or other professional or graduate schools when a cheater applies.

Violations can include cheating on exams, plagiarism, reuse of assignments without permission, improper use of the Internet and electronic devices unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Ignorance of these rules is not an excuse.

In this course the students are allowed to discuss homework problems with each other, but they must write their solution on their own. Please, review the guide at

http://www.jhu.edu/design/oliver/academic_manual/ethics.html

**Students with disabilities**

If you are a student with a disability, please, contact Dr. Richard Sanders in Student Disability Services: (410)516-4720 or studentdisabilityservices@jhu.edu. If you need special accommodations, please, let me know at least a week in advance before the test.

**Remarks**

1. The homework is the most important part of this course. Late homework will not be accepted, except in extraordinary situations.

2. The students are strongly advised to read the material in the book before coming to class. There is no penalty for reading ahead or consulting other sources.

3. There will be no make up tests given.

4. If you cannot make the office hours, but need help, feel free to contact me and make an appointment.

*Disclaimer: This syllabus provides a general guideline for the course, deviations may be necessary.*