MATH 415 SYLLABUS

Instructor: Maxim Arap
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Course: MATH 415
Office: 311 Krieger Hall
Office hours: Monday 10 - 11 am

Course description

This is the first semester of honors real analysis course. The highlights of math 415 are the following topics: topological spaces with emphasis on metric spaces, connectedness, compactness, completeness, function spaces.

Time and location

Lectures: Mondays and Wednesdays 1:30-2:45 in Shaffer Hall 202.
Recitations: Fridays 1:30-2:20 in Krieger Hall 300.

Textbook

Real Analysis by N.L. Carothers.
ISBN-10: 0521497566
The aim is to cover chapters 1 through 11.

Grading policy

30 % Homework.
40 % Two in class tests. Tentative dates: September 30, October 31.
30 % Comprehensive final exam: December 12, 9:00-12:00(noon).

Attendance

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

Additional references


4. Introduction to Topology (3rd edition) by B. Mendelson, Dover.

5. Theory of functions of a real variable, I.P. Natanson, Ungar.


All of the above books, except the last item, are on reserve in the M.S.E. library.

**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.