Math 305. Foundations of Mathematics.

Syllabus for Section 1, Spring 2017

Course Meetings: MWF 8:00 - 8:50 AM, Hume Hall 201

Instructor: Dr. Maksym Derevyagin
Office: Hume Hall 333
Office hours: Monday and Wednesday, 10:00-11:00 AM, 1:00-2:00 PM
              Or by appointment.
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Textbook: *A Transition to Advanced Mathematics by Douglas Smith, Maurice Eggen, and Richard St. Andre, Seventh Edition, Brooks/Cole Cengage Learning. ISBN: 9780495562023.*

Course contents and goals: This course is an introduction to mathematical reasoning. In particular, it covers some frequently used types of proofs as well as mathematical logic and basics of set theory. Thus, the main goal of the course is to develop the student's ability to understand and write mathematical proofs. To achieve this goal, it is intended to consider most of Chapters 1 to 5 of the book. As a result, the students who successfully complete this course will be well prepared to begin the study of more advanced topics of mathematics and natural sciences, for which a clear understanding of rigorous mathematical arguments and proofs is essential.

Homework and quizzes: Homework will be assigned but not collected and graded. There will be 3 in-class quizzes (*tentative quiz dates are February 8th, March 10th, and April 12th*) and quiz problems will be taken from the homework. In addition, the test problems will be similar to the homework problems and to the problems discussed in class.

Mid-terms and final exam: There will be three mid-term exams (*tentative test dates are February 22nd, March 31st, and April 28th*) and a final exam on Monday, May 8th at 8:00 AM.

Grading: The course grade will be calculated out of a total of 600 points:

- Each Mid-Term will be worth 100 points (300 points in total).
- The Final Exam is worth 200 points (200 points).
- Each Quiz will be worth 20 points (60 points in total).
- The attendance will be worth 40 points (40 points in total)
- The lowest of the three mid-term exam scores will be replaced by the final exam percentage provided that this percentage is higher.

The grading scale is: A: 540-600 (90% - 100%), B: 480-539 (80%- <90%), C: 420-479 (70%-<80%), D: 360-419, (60%-<70%). The plus/minus grading system will be used. I reserve the right to make the grading scale easier.

Calculator Policy: Your brain is a sufficient calculator in MATH 305. Calculators will NOT be allowed during exams. While I cannot stop you from using a calculator on homework assignments, I encourage you to do the homework without a calculator.

ELECTRONIC DEVICES: Cell phones, pagers, and other electronic devices that might cause disruption should be turned off or silenced before class begins.

ATTENDANCE: Attendance is very important and is directly correlated with course success. The classroom is equipped with barcode scanners for an automated attendance system. You will need to bring your University ID with you to class, and scan in each day. *It is the student's responsibility to make sure his/her attendance record is correct.* Please note that, from time to time, a class roll will be circulated in class to double-check the attendance record.

Additional Policies:

1. Each student is responsible for work missed due to absences. If a test is missed, a grade of zero will be given.
2. Any person who must miss a scheduled test or quiz because of an official university function must reschedule with the instructor to take the test at a time *before* the test is scheduled to be given. No other rescheduling will be allowed. If asked for by the instructor, official documentation must be provided.
3. An "I" grade will not be given without the permission of the Department of Mathematics.
4. A student who wishes to discuss the grading policy, testing policy, or wishes to have a conversation regarding the instructor of the course should make an appointment with the course supervisor in the Department of Mathematics.
5. Any student having three or more examinations scheduled for the same day can arrange with the instructor to take the noon examination on some other mutually satisfactory date. Please note that only the noon examination may be rescheduled for this reason.

Course Withdrawal: *The withdrawal deadline is Friday, March 3rd, 2016.* After the course withdrawal deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the student's academic dean. Dropping

the course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student has changed his or her major.

Academic Needs: It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Any request for extended testing time made through that office must be made prior to the date of the test.

Academic Honesty: The following statement is the policy of Department of Mathematics regarding academic honesty: Cheating on any exam, quiz, classwork, or homework, theft of exam questions or possession of exam questions prior to the time for the exam shall all be offenses subject to the appropriate penalties. The penalty for commission of any offense set out above is failure in the course, and subject to the approval of the Chancellor, dismissal or suspension from the university.