

Stony Brook University
Mathematics Department
Julia Viro

Fundamental Concepts of Mathematics
MAT 511
Fall 2018

Syllabus

Course description: This course aims to develop your appreciation of the logical basis of mathematics, and to lay the foundation for subsequent courses in the program. One of our goals will be to enhance your ability to understand and construct proofs. We will discuss fundamental ideas like number, set, and function; topics to be covered are logic and proofs, mathematical induction, set theory, relations and partitions, functions, cardinality, axioms and construction for integers, rationals, and reals.

Instructor: Julia Viro (julia.viro@stonybrook.edu)

Office Hours: TuTh 10:00am-12:00noon, 4:00-5:30pm in MLC.

Textbook: Smith, Eggen, St. Andre, *A transition To Advanced Mathematics*, Eighth Edition, Brooks/Cole.

Meetings: TuTh 5:30pm-6:50pm in Math Building 4-130.

Homework: will be assigned weekly through the Blackboard and collected in class on Tuesdays. The emphasis of the course is on writing proofs, so please try to write legibly and explain your reasoning clearly and fully. You are encouraged to discuss the homework problems with others, but your write-up must be your own work. Suspiciously similar papers won't be graded. Late home work will not be accepted.

Grading system: your grade for the course will be based on: homework 10%, five tests 18% each.

Make-up policy: Make-up examinations are given only for work missed due to unforeseen circumstances beyond the student's control.

The Student Accessibility Support Center (SASC) statement: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact SASC (631) 6326748 or <http://studentaffairs.stonybrook.edu/dss/>. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities/asp>.

Academic integrity statement: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary>

Critical incident management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn.