MA651 Topology 1

Instructor: Nikolay Strigul  
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Office Hours: by appointment  
Lectures: Tuesdays  06:15-08:45 pm,  Lieb Building 120

Homework: There will be weekly homework assignments due every two weeks.

Exams, Quizzes: There will be Midterm and Final Exams. Every class will start with a quiz covering definitions and theorems.

Grading:
Quizzes: 20 %  
Homework assignments: 20 %  
Midterm: 25 %  
Final: 35 %

Course program:

Jan 17 – Elementary set theory.  
Jan 24 – Ordinals and cardinals. Well-ordered sets.  
Jan 31 – Topological spaces.  
Feb 7 – Continuity. Homeomorphisms. Limits.  
Feb 14 – Connectedness. Cartesian product topology.  
Feb 21 – No lecture (Stevens is on Monday schedule) – takehome midterm exam  
Feb 28 – Separation Axioms.  
Mar 7 – Real numbers and functions.  
Mar 14 – Spring recess. No lecture.  
Mar 21 – Compactness.  
Mar 28 – Covering Axioms.  
Apr 4 – Metric spaces 1  
Apr 11 – Metric spaces 2  
Apr 18 – Complete spaces.  
Apr 25 – Topological vector spaces and linear mapping.  
May 2 – Application of topology to dynamical systems.  
May 9 – Final exam.