Math 418
INTRODUCTION TO TOPOLOGY AND MODERN ANALYSIS
Spring 2005

Instructor: Dr. Jae-Hyouk Lee, Cupples I (108C), 5-6866, email: jhlee@math.wustl.edu
Time and Location: T-T 1:00 - 2:30 PM, Cupples I 216.
Office Hours: Tuesday, Thursday 2:30 - 4:30 PM

Textbook: *Topology* (2nd Edition) by James Munkres.
Topology: An Introduction to the Point-Set and Algebraic Areas
by Donald W. Kahn.

Material: This course is a continuation of Math 417 which is about the topological foundations of modern analysis, with applications to various mathematical structures. In particular, Math 418 will deal the topological structures derived from algebraic structures, and their applications to algebra.

The key words of the course are fundamental groups, covering spaces and the Seifert-Van Kampen theorem. Moreover, some application to group theory and further study on algebraic topology from Kahn's book will be covered.

Notations and the order of contents will follow the textbooks, but most of materials will be changed based on emphasis on constructive approach.

The algebraic background materials are not prerequisite, and all of those will be delivered in the class.

Grading: There will be weekly assignments, two midterm exams and a final. They will count toward the grade as follows.

Assignments	40%
Midterms	30%
Final	30%.

Exams and Homework: The midterm exams will be on Thursday, February 24 and Thursday, April 7. The final exam is a take-home test on Thursday, May 5. A written homework assignment will be due every Tuesday during the semester and no late homework is acceptable.