Courses Description

Erzhuo Wang

Functions of Real Variable(Real Analysis):

(1) Textbook: Folland's Real Analysis

(2) Grades: 97/100

(3) Content: Measure Space, Lebesgue Measure, L^p Space, Radon Measure

(4) Instructor: Professor Shuangliang Di

Theory of One Complex Variable:

(1) Textbook: Stein's Complex Analysis

(2) Grades: 99/100

(3) Content: Holomorphic and Meromorphic functions, Residue Forumula, Classification of Singularity, Entire Functions, Elliptic Functions.

(4) Instructor: Professor Zhenyu Guo

Functional Analysis:

(1) Textbook: Functional Analysis written by Gongqing Zhang

(2) Grade: 90/100

(3) Content: Banach space, Open mapping theorem and closed image theorem, Hilbert space, Spectrum of compact operator.

(4) Instructor: Professor Xiaoxu Xu

Algebra Seminar:

(1) Textbook: A Course in Commutative Algebra(GTM 256)

(2) Grade: 90/100

(3) Content: Zariski topology, Specturm of Commutative Ring, Localization, Integral Extension, Princial Ideal Theorem.

(4) Instructor: Professor Shuangliang Di

Analytic Number Theory:

(1) Textbook: Lecture notes written by Professor Ping Xi.

(2) Grade: 83/100

(3) Content: Dirchlet L-functions, Serberg Sieve Method, Large Sieve Method Inequality, Prime Number Theorem, Exponential Sums, Circle Method.

(4) Instructor: Professor Ping Xi

Differential Manifold:

(1) Textbook: Loring Tu's Smooth Manifold

(2) Grade: 95/100

(3) Content: Smooth Maps, Immersion and Submersion, Submanifold, Vector Field, Differential Form.

(4) Instructor: Professor Zhouli Wang

Topology:

(1) Textbook: Topology written by Chengye You

(2) Grade: 94/100

(3) Content: Fundemental Group, Covering Space, Classification of Closed Surfaces.

(4) Instructor: Professor Qiang Zhang

Abstract Algebra:

(1) Textbook: Abstract written by Weisheng Qiu

(2) Grade: 94/100

(3) Content: Group Theory, Ring Theory, Galois Theory

(4) Instructor: Professor Qiang Zhang

The following three courses were taken in a summer school holded by Chinese Academy of Sciences rather than Xi'an Jiaotong University, so they don't appear on my transcript.

Algebraic Geometry:

(1) Textbook: Lecture notes written by Professor Shizhang Li(李时璋)

(2) Content: Sheaf Theory, Basic Propositions of Scheme(like integral, finite-type, fiber product), Immersion

(3) Instructor: Shizhang Li

Algebraic Number Theory:

(1) Textbook: Lecture notes written by Professor Jingren Chi(迟敬人)

(2) Content: Minkowski Theory, Ramification Theory, Density Theorem, basic L-functions and Class Field Theory.

(3) Instructor: Jingren Chi

Representation Theory:

(1) Textbook: Lecture notes written by Professor Hang Xue(薛航)

(2) Content: Group Algebra, characters of Representation, calulation of table of characters for some certain groups , Induced Representation.

(3) Instructor: Chen Wan