

MATH 223. Principles and Techniques of Applied Mathematics (3)

Prerequisite: graduate standing or permission of instructor. Linear spaces and spectral theory of operators.

MATH 228. Functions of a Complex Variable (3)

Prerequisite: MATH 128. Representation theorems of Weierstrass and Mittag-Leffler, normal families, conformal mapping and Riemann mapping theorem, analytic continuation, Dirichlet problem.

MATH 232. Mathematical Models with Technology (3)

Prerequisite: graduate standing in mathematics or permission of instructor. A technology-assisted study of the mathematics used to model phenomena in statistics, natural science, and engineering.

MATH 250. Perspectives in Algebra (3)

Prerequisite: graduate standing in mathematics or permission of instructor. Study of advanced topics in algebra, providing a higher perspective to concepts in the high school curriculum. Topics selected from, but not limited to, groups, rings, fields, and vector spaces.

MATH 251. Abstract Algebra I (3)

Prerequisite: undergraduate abstract algebra. Groups, rings, integral domains, and fields.

MATH 252. Abstract Algebra II (3)

Prerequisite: MATH 251. Rings and ideals, modules, linear and multilinear algebras, representations.

MATH 260. Perspectives in Geometry (3)

Prerequisite: graduate standing in mathematics or permission of instructor. Geometry from a transformations point of view. Euclidean and noneuclidean geometries in two and three dimensions. Problem solving and proofs using transformations. Topics chosen to be relevant to geometrical concepts in the high school curriculum.

MATH 263. Point Set Topology (3)

Prerequisite: MATH 172. Basic concepts of point set topology, set theory, topological spaces, continuous functions; connectivity, compactness and separation properties of spaces. Topics selected from function spaces, metrization, dimension theory.

MATH 270. Perspectives in Analysis (3)

Prerequisite: graduate standing in mathematics or permission of instructor. An overview of the development of mathematical analysis, both real and complex. Emphasizes interrelation of the various areas of study, the use of technology, and relevance to the high school mathematics curriculum.

MATH 271. Real Variables (3)

Prerequisite: MATH 172. Theory of sets; cardinals; ordinals; function spaces, linear spaces; measure theory; modern theory of integration and differentiation.

MATH 290. Independent Study (1-3; max total 6)

See *Academic Placement — Independent Study*. Approved for *RP* grading.

MATH 291T. Seminar

(1-3; max total 6)

Prerequisite: graduate standing. Seminar covering special topics in an area of mathematical research. (Formerly MATH 291)

MATH 298. Research Project in Mathematics (3)

Prerequisite: graduate standing. Independent investigation of advanced character as the culminating requirement for the master's degree. Approved for *RP* grading.

IN-SERVICE COURSE

(See *Catalog Numbering System*.)

Mathematics (MATH)

MATH 302. Topics in Mathematics for Teachers (1-3; max total 6 if topic not repeated)

Prerequisite: permission of instructor. Topics in modern mathematics with special emphasis for teachers.