MATHEMATICS (MATH)

MATH117 Introductory Calculus
This course is designed to introduce basic ideas and techniques of differential calculus. Students should enter with sound precalculus skills but with very limited or no prior study of calculus. Topics to be considered include differential calculus of algebraic, exponential, and logarithmic functions. (Integral calculus will be introduced in MATH118.)
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH118 Introductory Calculus II: Integration and Its Applications
This course continues MATH117 and is designed to introduce basic ideas and techniques of calculus. Students should enter MATH118 with sound precalculus skills and with very limited or no prior study of integral calculus. Topics to be considered include differential and integral calculus of algebraic, exponential, and logarithmic functions.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH119 Elements of Calculus, Part I
This course is the first half of a two-semester calculus sequence (MATH119, MATH120). This sequence is designed for students who have not previously studied calculus. The course, together with MATH120, will cover limits, derivatives, and integrals. Exponential, logarithmic, and trigonometric functions will be introduced and their calculus will be studied. Applications of calculus to biology, economics, physics, and/or other fields will be emphasized.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH120 Elements of Calculus, Part II
This course is the second half of a two-semester calculus sequence. This sequence is designed for students who have not previously studied calculus. The course, together with MATH119, will cover limits, derivatives, and integrals. Exponential, logarithmic, and trigonometric functions will be introduced and their calculus will be studied. Applications of calculus to biology, economics, physics, and/or other fields will be emphasized.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH119**

MATH121 Calculus I, Part I
MATH121 is designed for students who have completed a high school calculus course and who might pursue study in an area for which calculus is an essential tool but who are not prepared to place out of calculus. This course is a deeper and broader study of calculus than MATH117; theoretical aspects are not the main focus but will not be avoided. The course will, together with MATH122, treat limits, derivatives, and integrals; the calculus of exponential, logarithmic, trigonometric, and inverse trigonometric functions; techniques of integration; plane analytic geometry; various applications of calculus; and sequences and series, including power series and intervals of convergence.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH122 Calculus I, Part II
The continuation of MATH121. Topics covered include techniques and applications of integration and an introduction to sequences and series.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH132 Elementary Statistics
Topics included in this course are organizing data, central measures, measures of variation, distributions, sampling, estimation, conditional probability (Bayes' theorem), hypothesis testing, simple regression and correlation, and analysis of variation.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH211 Problem Solving for the Putnam
This course will explore the problems and problem-solving techniques of the annual William Lowell Putnam mathematical competition. Particular emphasis will be placed on learning to write clear and complete solutions to problems. The competition is open to all undergraduate students.
Offering: **Host**
Grading: **Cr/U**
Credits: **0.25**
Gen Ed Area: **None**
Prereq: **None**

MATH221 Vectors and Matrices
This is a course in the algebra of matrices and Euclidean spaces that emphasize the concrete and geometric. Topics to be developed include solving systems of linear equations; matrix addition, scalar multiplication, and multiplication; properties of invertible matrices; determinants; elements of the theory of abstract finite dimensional real vector spaces; dimension of vector spaces; and the rank of a matrix. These ideas are used to develop basic ideas of Euclidean geometry and to illustrate the behavior of linear systems. We conclude with a discussion of eigenvalues and the diagonalization of matrices.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH222 Multivariable Calculus
This course treats the basic aspects of differential and integral calculus of functions of several real variables, with emphasis on the development of calculational skills. The areas covered include scalar- and vector-valued functions of several variables, their derivatives, and their integrals; the nature of extremal values of such functions and methods for calculating these values; and the theorems of Green and Stokes.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH223 Linear Algebra
An alternative to MATH221, this course will cover vector spaces, inner-product spaces, dimension theory, linear transformations and matrices, determinants, eigenvalues and eigenvectors, Hermitian and unitary transformations, and elementary spectral theory. It will present applications to analytic geometry, quadratic forms, and differential equations as time permits. The approach here is more abstract than that in MATH221, though many topics appear in both.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH225 Fundamentals of Analysis: An Introduction to Real Analysis
In this rigorous treatment of calculus, topics will include, but are not limited to, real numbers, limits, sequences and series, continuity and uniform continuity, differentiation, the Riemann integral, sequences and series of functions, pointwise and uniform convergence of functions, and interchange of limiting processes. MATH228 or comparable experience in writing mathematical proofs is strongly recommended for success in this course.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **(MATH222 AND MATH221) OR (MATH222 AND MATH223)**

MATH226 Complex Analysis
This course will present the basic properties of complex analytic functions. We begin with the complex numbers themselves and elementary functions and their mapping properties, then discuss Cauchy's integral theorem and Cauchy's integral formula and applications, Taylor and Laurent series, zeros and poles and residue theorems, the argument principle, and Rouche's theorem. In addition to a rigorous introduction to complex analysis, students will gain experience in communicating mathematical ideas and proofs effectively.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **(MATH222 AND MATH221) OR (MATH222 AND MATH223)**

MATH228 Discrete Mathematics
This course is a survey of discrete mathematical processes. Students will be introduced to the process of writing formal mathematical proofs, including mathematical induction. Topics may include set theory, logic, number theory, finite fields, permutations, elementary combinatorics, or graph theory.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH229 Differential Equations
This course is an introduction to the theory of ordinary differential equations. Many aspects of mathematics and computer science are important in this discipline, and a broad view will be presented, in agreement with modern theory and practice. The only prerequisite for the course is multivariable calculus; all other necessary tools will be developed as the course proceeds.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH222**

MATH231 An Introduction to Probability
This course teaches the basic theory of probability. Although the notions are simple and the mathematics involved require only a basic knowledge of the ideas of differential and integral calculus, a certain degree of mathematical maturity is necessary. The fundamental concepts to be studied are probability spaces and random variables, the most important ideas being conditional probability and independence. The main theorems we will study are the law of large numbers and the central limit theorem.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH222 AND MATH228**

MATH232 Mathematical Statistics
This course covers the basic notions of estimation, hypothesis testing, regression, analysis of variance, experimental design, and other topics in statistics from a rigorous mathematical perspective. This material will be supplemented by various case studies.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH231**

MATH241 Set Theory
This course covers ordinal and cardinal numbers, cardinal arithmetic, theorems of Cantor and Schroeder-Bernstein, introduction to Zermelo-Fraenkel set theory, Axiom of Choice, and some infinitary combinatorics.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH243 Mathematical Logic
This course is an introduction to mathematical logic, including first-order logic and model theory, axiomatic set theory, and, as time permits, Goedel's incompleteness theorem.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH241 OR MATH261 OR MATH228**

MATH244 Topology: Point Set
This is an introduction to general topology, the study of topological spaces. We will begin with the most natural examples, metric spaces, and then move on to more general spaces. This subject, fundamental to mathematics, enables us to discuss notions of continuity and approximation in their broadest sense. We will illustrate topology's power by seeing important applications to other areas of mathematics.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **None**

MATH246 Applied Topology
This course teaches the main concepts in Applied Topology. Students will learn to apply nonlinear methods to analyze the shape of data sets. These approaches are drawn from classical topology and focus on the shape in one of two ways: they either 'measure' it, that is count the occurrences of patterns within the data set; or build combinatorial representations of the data set. As an example of the former, we will look at persistent homology, whereas the latter will be

represented by mapper. The topics covered include: basic notions from topology, simplicial complexes (Cech complexes, Vietoris-Rips complexes, etc.), homology, persistent homology and applications, mapper.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH223**

MATH252 Differential Forms
This class will be an introduction to differential forms, a central tool in modern topology, geometry, and physics. The course begins where MATH222 ends, with Green's theorem, the divergence theorem, and Stokes' theorem. All of these theorems are special cases of one theorem, known as the general Stokes' theorem, about integration of differential forms. The objective of the first part of the course will be to understand and prove this theorem. We will then discuss manifolds and what can be learned about them using differential forms, concentrating on de Rham cohomology.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **(MATH221 AND MATH222) OR (MATH222 AND MATH223)**

MATH255 Fundamentals of Analysis II
Topics to be addressed include convergence of sequences and series of functions, spaces of functions and their topologies, the Lebesgue integral (on the line) and its basic convergence theorems, and Fourier series.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH225**

MATH261 Abstract Algebra: Groups, Rings, and Fields
This course is an introduction to abstract algebra, a core area of mathematics: the study of the basic properties of structures, with emphasis on fundamental results about groups and rings. MATH228, or comparable experience in writing proofs and in abstract reasoning, is strongly recommended.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **(MATH221 AND MATH228) OR (MATH223 AND MATH228)**

MATH262 Abstract Algebra
This continuation of MATH261 will discuss fields and Galois theory. Additional topics will be covered as time permits.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH261**

MATH271 Error-Correcting Codes
Nowadays messages are sent electronically through different kinds of communication channels. Most of these channels are not perfect and errors are created during the transmission. The object of an error-correcting code is to encode the data so that the message can be recovered if not too many errors have occurred. The goal of this course is to introduce the basic mathematical ideas behind the design of error-correcting codes. It makes use of algebraic techniques involving vector spaces, finite fields, and polynomial rings. These techniques will be developed in this course so that prior knowledge is not necessary.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH221 OR MATH223**

MATH272 Elementary Number Theory
This is a course in the elements of the theory of numbers. Topics covered include divisibility, congruences, quadratic reciprocity, Diophantine equations, and a brief introduction to algebraic numbers.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH228**

MATH273 Combinatorics
This course will present a broad, comprehensive survey of combinatorics. Topics may include partitions, the topic of inclusion-exclusion, generating functions, recurrence relations, partially ordered sets, trees, graphs, and min-max theorems.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH228**

MATH274 Graph Theory
A graph is a set V of elements called vertices and a set E of pairs of elements of V called edges. From this simple definition, many elegant models have been developed. Indeed, graph theory is essential to applications of computer science to network analysis and planar mapping. This course will be an introduction to graph theory with an emphasis on the connections between graph theory and linear algebra.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH221 OR MATH223**

MATH275 Probabilistic Graphical Models
Graphical models are used to represent complex, uncertain relationships among several, possibly very many, variables. They are fundamental in many domains of application, including medical diagnosis and prognosis, vision and image processing, robotics, and computational biology. This course will familiarize students with the graph theory and probability theory needed to discuss graphical models. After that, students will investigate exact and approximate statistical inference for graphical models, learning/inference of parameters, and possibly learning of graph structure.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **MATH222**

MATH283 Differential Geometry
This course is an introduction to the classical differential geometry of curves and surfaces in Euclidean 3-space. Topics from global differential geometry and extensions to higher dimensions will be considered as time and the background of the students permit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **NSM-MATH**
Prereq: **(MATH222 AND MATH221) OR (MATH222 AND MATH223)**

MATH401 Individual Tutorial, Undergraduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH402 Individual Tutorial, Undergraduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH407 Senior Tutorial (downgraded thesis)
Downgraded Senior Thesis Tutorial - Project to be arranged in consultation with the tutor. Only enrolled in through the Honors Coordinator.
Offering: **Host**
Grading: **A-F**

MATH408 Senior Tutorial (downgraded thesis)
Downgraded Senior Thesis Tutorial - Project to be arranged in consultation with the tutor. Only enrolled in through the Honors Coordinator.
Offering: **Host**
Grading: **A-F**

MATH409 Senior Thesis Tutorial
Topics to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH410 Senior Thesis Tutorial
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH411 Group Tutorial, Undergraduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH412 Group Tutorial, Undergraduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH419 Student Forum
Student-run group tutorial, sponsored by a faculty member and approved by the chair of a department or program.
Offering: **Host**
Grading: **Cr/U**

MATH421 Undergraduate Research, Science
Individual research projects for undergraduate students supervised by faculty members.
Offering: **Host**
Grading: **OPT**

MATH422 Undergraduate Research, Science
Individual research projects for undergraduate students supervised by faculty members.
Offering: **Host**
Grading: **OPT**

MATH423 Advanced Research Seminar, Undergraduate
Advanced research tutorial; project to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH424 Advanced Research Seminar, Undergraduate
Advanced research tutorial; project to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH465 Education in the Field, Undergraduate
Students must consult with the department and class dean in advance of undertaking education in the field for approval of the nature of the responsibilities and method of evaluation.
Offering: **Host**
Grading: **OPT**

MATH466 Education in the Field, Undergraduate
Students must consult with the department and class dean in advance of undertaking education in the field for approval of the nature of the responsibilities and method of evaluation.
Offering: **Host**
Grading: **OPT**

MATH469 Education in the Field, Undergraduate
Students must consult with the department and class dean in advance of undertaking education in the field for approval of the nature of the responsibilities and method of evaluation.
Offering: **Host**
Grading: **OPT**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH470 Independent Study, Undergraduate
Credit may be earned for an independent study during a summer or authorized leave of absence provided that (1) plans have been approved in advance, and (2) all specified requirements have been satisfied.
Offering: **Host**
Grading: **OPT**
Credits: **0.50**
Gen Ed Area: **None**
Prereq: **None**

MATH491 Teaching Apprentice Tutorial
The teaching apprentice program offers undergraduate students the opportunity to assist in teaching a faculty member's course for academic credit.
Offering: **Host**
Grading: **OPT**

MATH492 Teaching Apprentice Tutorial
The teaching apprentice program offers undergraduate students the opportunity to assist in teaching a faculty member's course for academic credit.
Offering: **Host**
Grading: **OPT**

MATH495 Research Apprentice, Undergraduate
Project to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **Cr/U**

MATH496 Research Apprentice, Undergraduate
Project to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **Cr/U**

MATH500 Graduate Pedagogy
The elements of good teaching will be discussed and demonstrated through lectures, practice teaching sessions, and discussions of problems encountered in the actual teaching environment. The staff consists of faculty and experienced graduate students. An integral part of the course is a required one-day workshop BEFORE the first day of formal classes.

Training in pedagogy in the first semester of attendance is required for all incoming Wesleyan MA and PhD students who have not already fulfilled this requirement at Wesleyan. BA/MA students are not required to get training in pedagogy but may choose to do so.

Offering: **Crosslisting**
Grading: **Cr/U**
Credits: **0.50**
Gen Ed Area: **None**
Identical With: **E&ES500, CHEM500, BIOL500, ASTR500, MB&B500, MUSC500, PHYS500, PSYC500**
Prereq: **None**

MATH501 Individual Tutorial, Graduate
Topic to be arranged in consultation with tutor.
Offering: **Host**
Grading: **OPT**

MATH502 Individual Tutorial, Graduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH503 Selected Topics, Graduate Sciences
Topic to be arranged in consultation with the tutor. A seminar primarily concerned with papers taken from current research publications designed for, and required of, graduate students.
Offering: **Host**
Grading: **OPT**

MATH504 Selected Topics, Graduate Sciences
Topic to be arranged in consultation with the tutor. A seminar primarily concerned with papers taken from current research publications designed for, and required of, graduate students.
Offering: **Host**
Grading: **OPT**

MATH507 Topics in Combinatorics
Each year the topic will change.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH509 Model Theory
This course will emphasize model theoretic algebra. We will consider the model theory of fields, including algebraically closed, real-closed, and p-adically closed fields; algebraically closed valued fields; and also general questions of definability in fields. As time permits, we will consider more recent applications of model theory in number theory and arithmetic geometry. Ideally, the student should understand what it means to be first-order definable and should have the equivalent of a year's study of abstract algebra. To study various applications, it will be necessary to assume certain results from the areas of application--that is, without proving them ab initio.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH511 Group Tutorial, Graduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH512 Group Tutorial, Graduate
Topic to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH513 Analysis I
MATH513 and MATH514 constitute the first-year graduate course in real and complex analysis. One semester will be devoted to real analysis, covering such topics as Lebesgue measure and integration on the line, abstract measure spaces and integrals, product measures, decomposition and differentiation of measures, and elementary functional analysis. One semester will be devoted to complex analysis, covering such topics as analytic functions, power series, Mobius transformations, Cauchy's integral theorem and formula in its general form, classification of singularities, residues, argument principle, maximum modulus principle, Schwarz's lemma, and the Riemann mapping theorem.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH514 Analysis I
MATH513 and MATH514 constitute the first-year graduate course in real and complex analysis. One semester will be devoted to real analysis, covering such topics as Lebesgue measure and integration on the line, abstract measure spaces and integrals, product measures, decomposition and differentiation of measures, and elementary functional analysis. One semester will be devoted to complex analysis, covering such topics as analytic functions, power series, Mobius transformations, Cauchy's integral theorem and formula in its general form, classification of singularities, residues, argument principle, maximum modulus principle, Schwarz's lemma, and the Riemann mapping theorem.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH515 Analysis II
This is a topics course in analysis and varies from year to year. It may be repeated for credit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH516 Analysis II
This is a topics course in analysis and varies from year to year. It may be repeated for credit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **MATH513**

MATH523 Topology I
This course is an introduction to topological spaces and the fundamental group; topological spaces, continuous maps, metric spaces; product and quotient spaces; compactness, connectedness, and separation axioms; and introduction to homotopy and the fundamental group.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH524 Topology I
A continuation of MATH523, this course will be an introduction to algebraic topology, concentrating on the fundamental group and homology.
Offering: **Host**

Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH525 Topology II: Topics in Topology
This is a topics course in topology that varies from year to year. This course may be repeated for credit. Recent topics have included knot theory, homotopy theory, Lie groups, and topological graph theory.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH526 Topology II
This is a topics course in topology that varies from year to year. It may be repeated for credit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH543 Algebra I
This course covers group theory including Sylow theorems, and basic ring and module theory, including structure of finitely generated modules over principal-ideal domains.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH544 Algebra I
This course studies Galois theory, finitely generated modules over principal-ideal domains, and other topics as time permits.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH545 Algebra II: Topics in Algebra
This is a topics course in algebra that varies from year to year. This course may be repeated for credit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH546 Algebra II
This is a topics course in algebra that varies from year to year. It may be repeated for credit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**

MATH549 Advanced Research Seminar, Graduate
Advanced research tutorial; project to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH550 Advanced Research Seminar, Graduate
Advanced research tutorial; project to be arranged in consultation with the tutor.
Offering: **Host**
Grading: **OPT**

MATH572 Special Topics in Mathematics
This is a supervised reading course on advanced topics in number theory. This course may be repeated for credit.
Offering: **Host**
Grading: **A-F**
Credits: **1.00**
Gen Ed Area: **None**
Prereq: **None**