Related Classes

We made this list to help you see "class trajectories" in the schedule which might not be apparent at first glance. All the classes listed under a given topic are thematically related to each other, and if you're interested in one, you may be interested in the others. However, you are certainly under no obligation to take lots of classes on similar topics. This is just one more resource we thought might be useful in helping you navigate the Mathcamp schedule.

Analysis

Real Analysis (W1); Through the Eyes of a Prime: an Introduction to p-adic Numbers (W1); Complex Analysis (W1–2); Linear and Nonlinear Systems of Differential Equations (W2); exp (W2); The Bell Curve (W3); Analytic Number Theory (W3); The Intermediate Value Theorem and Chaos (W3); Scandalous Curves (W4)

Algebra

Number Theory A Quick Introduction to Number Theory (W1); Irrationalia (W1); Through the Eyes of a Prime: an Introduction to p-adic Numbers (W1); Quadratic Forms in Number Theory (W2); Congruent Numbers & Elliptic Curves (W2–3); Analytic Number Theory (W3); When Factoring Goes Wrong (W4); Bernoulli Numbers (W4); Geometry of Numbers (W4); Generating Functions, Partitions, and Catalan Numbers (W4)

Group Theory Group Theory (W1); The Banach-Tarski Paradox (W1–2); Sylow Theorems (W3); Geometry Of Groups (W4); Tilings, Groups, and Orbifolds (W4)

Algebraic Geometry Cubic Curves (W1); Counting Conics (W2); Congruent Numbers & Elliptic Curves (W2–3); Polynomial Fermat's Last Theorem (W3)

Rings and Fields Introduction to Ring Theory (W1); A Quick Introduction to Number Theory (W1); Galois Theory (W2&4); When Factoring Goes Wrong (W4); On Beyond i (W4)

Combinatorics

Combinatorial Topology (W1); The Hales–Jewett Theorem (W1); Combinatorial Game Theory (W2); Evasiveness (W2); Magic (W3); Partitioning (W3); Latin Squares (W3); NP-Completeness and Latin Squares (W4); Error-Correcting Codes (W4); Finite Geometries (W4); Discrete Derivatives (W4); Sperner's Lemma (W4); Probabilistic Method (W4); Generating Functions & Partitions (W4)

Topology

Moore Method Point-Set Topology (W1–4); Combinatorial Topology (W1); Fractal Zoo (W2); Knot Theory (W3); How to Cut a Sandwich (W3); Low-Dimensional Topology (W4); Tilings, Groups, and Orbifolds (W4)

Logic and Foundations

Universal Algebra (W1); Infinite Trees (W1–2); Category Theory (W2); The Continuum Hypothesis (W3–4); Goedel's Incompleteness Theorem (W4)

Complex Analysis (with applications to algebra)

The Chebyshev Prime Number Theorem (W1 Colloquium); Complex Analysis (W1–2); Analytic Number Theory (W3); Polynomial Fermat's Last Theorem (W3)

Graph Theory

Introduction to Graph Theory (W1); Electricity & Graphs (W2); Evasiveness (W2); Random Graphs (W3); Graph Coloring (W3)

Fractals

Irrationalia (W1); Fractal Zoo (W2); Fractal TBD (W4)

Probability in the Real World

Bayesian Statistics (W1); Reasoning About Knowledge and Uncertainty, with a Bit of Game Theory (W2); Probability and the Mind (W2); The Bell Curve (W3)

Computer Science

How Fast Can We Multiply? (W1); Models of Computation Simpler than Programming (W1); Models of Computation as Strong as Programming (W2); Compressed Sensing (W2); Evasiveness (W2); (Th)ink Machine (W4); Error-Correcting Codes (W4); NP–Completeness and Latin Squares (W4); Probabilistically Checkable Proofs of Proximity (W4)

Physics

Geometry Of Spacetime (W2); Electricity & Graphs (W2); Quantum Mechanics in Pictures (W3)