# GRADUATE COURSES
## Spring 2024
### (as of 01/24/24)

| Course # | Title | Instructor | Schedule | First Meeting |
|---|---|---|---|---|
| **MAT 515** | Topics in Number Theory and Related Analysis: *Spectral Theory of Locally Uniform Geometries* | P. Sarnak | T<br>1:30-4:20 p.m.<br>Fine 1001 | January 30 |
| **MAT 517** | Topics in Arithmetic Geometry: *Diophantine Geometry and Modular Forms* | S.W. Zhang | MW<br>1:30-2:50 p.m.<br>Fine 601 | January 29 |
| **MAT 519** | Topics in Number Theory: *Sieves and Algebraic Number Theory* | M. Bhargava | TH<br>1:30-4:20 p.m.<br>Fine 1001 | February 1 |
| **MAT 527** | Topics in Differential Equations: *Parabolic PDE* | A. Chang | TTH<br>1:30-2:50 p.m.<br>Fine 1201 | January 30 |
| **MAT 528** | Topics in Nonlinear Analysis: *Topics in General Relativity* | M. Dafermos | F<br>3:00-5:50 p.m.<br>Fine 322 | February 2 |
| **MAT 531** | Introduction to Riemann Surfaces | P. Yang | MW<br>11:00 a.m.-12:30 p.m.<br>Fine 1201 | January 29 |
| **MAT 547** | Topics in Algebraic Geometry: *Boundedness of Varieties* | C. Xu | TTH<br>1:30-2:50 p.m.<br>Fine 601 | January 30 |
| **MAT 549** | Topics in Algebra: *Equidistribution via \ell-adic Cohomology* | N. Katz | TTH<br>3:00-4:20 p.m.<br>Fine 322 | January 30 |
| **MAT 559** | Topics in Geometry: *Lipschitz Extension, Reverse Isoperimetry and Rounding* | A. Naor | W<br>1:30-4:20 p.m.<br>Fine 1001 | January 31 |
| **MAT 560** | Algebraic Topology | I. Zemke | TTH<br>11:00 a.m.-12:20 p.m.<br>Fine 1201 | January 30 |
| **MAT 569** | Topics in Topology: *Topology of 4-manifolds* | Z. Szabo | TTH<br>1:30-2:50 p.m.<br>Fine 801 | January 30 |
| **MAT 577/** MAT 478 | Topics in Combinatorics: *The Probabilistic Method* | N. Alon | TTH<br>9:30-10:50 a.m.<br>Fine 214 | January 30 |
| **MAT 586/** APC 511/ MOL 511/ QCB 513 | Computational Methods in Cryo-Electron Microscopy | A. Singer | TTH<br>11:00 a.m.-12:20 p.m.<br>Fine 401 | January 30 |
| **MAT 589** | Topics in Probability, Statistics and Dynamics: *Modern Discrete Probability Theory* | A. Sly | MW<br>1:30-2:50 p.m.<br>Fine 224 | January 29 |
| **MAT 595/** PHY 508 | Introduction to Mathematical Physics: *Mathematical Aspects of Condensed Matter Physics* | J. Shapiro | TTH<br>1:30-2:50 p.m.<br>*Room TBD* | January 30 |

Please visit [Course Offerings](#) to see the most up-to-date course information.