

# Math 191H: Honors Seminar: Mathematics

## Catalog Description

**191H. Honors Seminar: Mathematics.** (Formerly Math 190). Math Seminar, three hours. Participating seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

## General Information

Math 191H, the Honors Seminar: Mathematics, is offered once a year, quarter to be determined. The course is open to all Upper Division students who have done reasonably well in their other mathematics courses. Enrollment may be restricted by the instructor. Student participation is required, and the students are charged with presenting most of the material.

The instructor and the topic vary from year to year. The instructor for Spring 2004 is M. Takesaki. Topics treated in years past, and the instructors, are:

Spring 2005: *The Banach-Tarski Paradox*, G. Hjorth

Spring 2004: *Introduction to Harmonic Analysis*, M. Takesaki

Spring 2003: *Introduction of Functional Analysis*, M. Takesaki

Spring 2002: *Matrix Groups*, G. Hjorth

Spring 2001: *Participating Seminar in Numerical Analysis*, C. Anderson

Spring 2000: *Introduction to Coding Theory and Information Theory*, D. Blasius

Fall 1998: *The Theory of Groups and Quantum Mechanics*, M. Takesaki

Fall 1997: *Basic Examples in Dynamical Systems*, R. Perez-Marco

Fall 1996: *Knots and their Invariants*, S. Popa

Winter 1996: *Control Theory: Pure and Applied*, P. Petersen

Spring 1995: *Rational Points on Elliptic Curves*, R. Elman

Winter 1994: *Fractal Geometry -- Mathematical Foundations and Applications*, L. Young

Winter 1993: *Topics in Elementary Number Theory*, M. Green

Winter 1992: *Complex Dynamical Systems*, T. Gamelin

Winter 1991: *Continued Fractions*, L. Carleson

Spring 1990: *Mathematical Principles of Scientific Computing*, B. Engquist

Winter 1990: *An Introduction to Chaotic Dynamical Systems*, D. Babbitt

