

# MATH 538: Algebraic Number Theory

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**Mon, Wed, Fri: 10:00-11:00**

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**Office hours:** By appointment

**Course outline:** This will be a standard graduate course in Algebraic number theory. We shall study global fields, rings of integers, ideal theory and the class number. Subsequently, we shall continue with Ramification theory, the discriminant and different and prove Dirichlet's unit theorem.

The pre-requisites are basic algebra (323), basic number theory (312) and Commutative Algebra.

**Textbook:** J. Neukirch: Algebraic Number Theory.

**Evaluation:** There will be periodic assignments. Each student is expected to give 1-2 lectures on an assigned topic within the framework of the course. The final grade will be based on these and classroom participation. There will be no final exam for the course.