



# MAT 541 *p*-adic Numbers

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**Explore non-Archimedean worlds where divisibility governs distance!**

*p*-adic numbers are fundamental to number theory, and of late play a role in other areas of mathematics and physics. They provide alternative completions of the rational numbers, and hence afford new settings in which to study functions with special values on a discrete set. This course will introduce *p*-adic numbers, and develop their theory. The course is intended for graduate students and advanced undergraduates. Students should have a rigorous undergraduate analysis course and some previous experience with abstract algebraic structures. Inquiries welcome.