

The Calculus Honors Sequence: Math 375/376

Description: The department of Mathematics has developed a year-long sequence of two courses, Math 375-376, which serves as an alternative to Math 234, 340/1, and 319. It covers multi-variable calculus, linear algebra, and differential equations. The goal of these courses is to provide highly motivated and well-prepared students with an opportunity to develop a deeper understating of these fundamental areas of mathematics. The classes are relatively small, with sizes ranging from twenty to forty students.

Math 375 covers multi-variable calculus and linear algebra, and replaces parts of the standard third semester of calculus, Math 234, and the standard Honors linear algebra course 341. Math 376 covers the remaining material from Math 234 as well as ordinary differential equations, and replaces Math 319. Both 375 and 376 carry 5 credits, and meet for 5 hours per week.

After Math 376, students are often ready to embark on the 5XX level mathematics classes. These are considered senior level courses. If they continue in mathematics, they are often able to take a substantial number of graduate mathematics courses before they graduate, paving the way to a successful career in mathematics or a related field. If they do not continue in Mathematics they gain a mastery of the subject that allows them to learn more advanced techniques with ease, something very useful especially for those entering graduate school in any area that will require mathematical knowledge (for example Engineering, Physics, or Economics). Many students in the sequence become double Math majors, or obtain a certificate in Math.

These courses are very different from math courses you have likely taken before. They focus on the theoretical underpinnings of the subject, as well as difficult problem solving techniques. It is not uncommon for students to be shocked by the amount of work these courses take, at first. However, those that stick with it gain valuable skills that cannot be obtained from our standard (and easier) courses.

Professor Autumn Kent will be teaching Math 375 course this Fall. She received her PhD in 2006 from the University of Texas at Austin and has been teaching at UW Madison since 2010. Her mathematical research interests include topics in modern topology and geometry. If you have questions about this class, you can contact her at kent@math.wisc.edu.