

Mathematics 4181
Seminar in Mathematics

Student Learning Outcomes

1. **The students will demonstrate factual knowledge.** Students will interpret and use the vocabulary, symbols, and basic concepts modeled for them in a variety of mathematical presentations.
2. **The students will demonstrate an understanding of fundamental principles of mathematics and mathematical presentations.** Students will reflect on and discuss the mathematical ideas developed in the presentations, as well as the presentation techniques themselves.
3. **The students will apply the course material.** Students will use the concepts and techniques learned in this class to deepen their understanding and appreciation of mathematics, and also to develop and improve their ability to research and deliver effective mathematical presentations.
4. **The students will develop specific skills, competencies, and points of view needed by mathematicians.** Students will develop insight into a variety of mathematical topics not typically covered in their classes. Students will also observe and model the skills and competencies necessary to make an effective mathematical presentation.

Course Content

1. A variety of mathematical topics will be presented by both faculty and students. The topics will typically be either topics not discussed in mathematics classes, or ideas presented in a manner distinct from that seen in the mathematics curriculum.
2. Students will study and discuss identification of mathematical topics, research of mathematical ideas, and presentation of mathematical results.
3. Students will research, develop, and present mathematical talks.