

Mathematics 335, Section 101

Introduction to Mathematics

September-December, 2016

Prerequisites: We shall explore some of the most beautiful ideas in mathematics, including those of numbers, infinity, geometry and fractals. Little mathematics background beyond high school mathematics is assumed and the course is for the most part self contained. However, students should expect to face some sophisticated mathematical ideas.

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Text

- **Edward Burger and Michael Starbird, The Heart of Mathematics**
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Topics

1. **Fun and Games**
 2. **Number Contemplation**
 3. **Infinity**
 4. **Geometric Gems**
 5. **Contortions of Space**
 6. **Chaos and Fractals**
 7. **Further Topics**
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Grading

- There will be two midterms (schedule to be announced) accounting for 30% of the final mark.
- There will be nine homework assignments. The homework problems will account for about 20% of the final mark.
- There will be a project assigned one month before the end of classes which will be due on the last day of class. It will count 15% of the final mark.
- Class participation will count for 5% of the final mark.
- The final exam will account for 30% of the final mark.