ELEMENTARY FOURIER ANALYSIS:
MATH 396 T: SECTION 001
SYLLABUS

SPRING 2020

<table>
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<tr>
<th>Instructor:</th>
<th>Office:</th>
<th>Office Hours:</th>
<th>Phone:</th>
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<tbody>
<tr>
<td>Robert Sims</td>
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My e-mail address is: rsims@math.arizona.edu

1. Textbook:

The textbook for this course is:
*Early Fourier Analysis* by Hugh L. Montgomery.

2. Material to be Covered:

My goal is to cover:
- Chapter 1: Complex Numbers
- Chapter 2: The Discrete Fourier Transform
- Chapter 3: Fourier Coefficients and First Fourier Series
- Chapter 4: Summability of Fourier Series
- Chapter 5: Fourier Series in Mean Square
- Chapter 6: Trigonometric Polynomials
- Chapter 7: Absolutely Convergent Fourier Series
- Chapter 8: Convergence of Fourier Series
- Chapter 9: Applications of Fourier Series

3. Grading Policy:

Your grade will consist of a midterm and a final.

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Midterm</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
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4. **Homework:**

There will be several homework assignments given throughout the semester. As you will quickly see, the answers to those problems from the text have solutions in the back of the book. For this reason, there will be no homework score. It is, however, important to do homework problems throughout the semester.

5. **Midterm:**

There will be a mid-term approximately 1/2 way through the semester.

6. **Final**

The final exam will be cumulative.