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1. Textbook:

The textbook for this course is:

*Linear Operators in Hilbert Space* by Joachim Weidmann.

2. Material to be Covered:

My goal is to cover:

- Chapter 4: Linear Operators and Their Adjoint
- Chapter 5: Closed Linear Operators
- Chapter 6: Special Classes of Linear Operators
  - 6.1 Finite Rank and Compact Operators
  - 6.2 Hilbert-Schmidt Operators
- Chapter 7: The Spectral Theory of Self-Adjoint and Normal Operators
- Chapter 9: Perturbation Theory for Self-Adjoint Operators

3. Grading Policy:

Your grade will consist of a midterm and a final.

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