Course Information

INSTRUCTOR:

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Office</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xiaobo Liu</td>
<td><a href="mailto:Liu.43@nd.edu">Liu.43@nd.edu</a></td>
<td>HAYE 132</td>
<td>631-8711</td>
</tr>
</tbody>
</table>

CLASS TIMES:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>MWF</td>
<td>9:35–10:25</td>
<td>DBRT 141</td>
</tr>
<tr>
<td>H</td>
<td>11:00–11:50</td>
<td>HAYE 129</td>
</tr>
</tbody>
</table>

OFFICE HOURS:

M 4:00-5:00 or by appointment


EXAMS: Two midterm exams and one final exam will be given on the following dates:

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>F Sep. 23</td>
<td>9:35–10:35</td>
<td>DBRT 141</td>
</tr>
<tr>
<td>II</td>
<td>W Oct. 26</td>
<td>9:35–10:35</td>
<td>DBRT 141</td>
</tr>
<tr>
<td>Final</td>
<td>W Dec. 14</td>
<td>8:00–10:00</td>
<td>TBA</td>
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Exams may be made up only with an excused absence from the Assistant Vice President for Residence Life.

ATTENDANCE: You are expected to attend every class. Excessive absences may result in lowering your grade and even failing the course.

HOMEWORK: Homework assignments will be announced in class. Homework which was assigned in the previous week will be collected on each Friday. Assignments and other course information will also be posted on the course webpage http://www.nd.edu/~xliu3/Teaching/math10850.html. Use complete English sentences in all written work. Special care should be taken to use the appropriate logical connectives, in order to make arguments coherent.

HONOR CODE: The Honor Code is in effect for all exams and assignments. You are encouraged to work together on the assignments, but copying in any form or submitting work done by others as your own is a violation of the Honor Code.

GRADES: Grades will be based on a total of 360 points broken down as follows: Each midterm exam will be worth 80 points; the final exam will be worth 120 points; homework will be worth 50 points; quizzes (which will always be announced beforehand) will be worth a total of 30 points.
SYLLABUS FOR MATH 10850

I. Introduction
Real Numbers; Mathematical Induction

Chapter 1
Integral Calculus
The definition of a function. Step functions and their Integrals. Integrals of more general functions. Upper and lower integrals. The notion of a Riemann sum.

Chapter 3
Continuous Functions

Chapter 4
Differential Calculus And Its Applications

Chapter 5
Relation Between Integration and Differentiation
The Fundamental Theorem of Calculus. Integration by substitution and integration by parts.

Chapter 6
The Logarithm and Exponential Functions
The natural logarithm, the exponential function and their derivatives. The Inverse Function Theorem and the derivatives of inverse trigonometric functions. The method of partial fractions.

Chapter 7 (Optional)
Taylor’s Theorem