Instructor
Dr. Charles H. Lee
657-278-2726
charleshlee@fullerton.edu
http://newton.fullerton.edu/lee

Office Hours
MH 182-E
MW 11:00-12:50

Text Book
Calculus & its Applications—10th Ed. By Bittinger, Ellenbogen, & Surgent (Optional) & MyMathLab (Required)

Homework
• Homework assignments are given online using MyMathLab.
• They are due on almost every lecture day at exactly 11:59 P.M. Pacific time, but you can submit earlier as you wish.
• No late submissions or hand-in homework will be accepted.
• Every homework problem is graded.
• One lowest score will be dropped.

Exams
• Two midterm exams & a comprehensive final exam will be given.
• NO make-up exam except in very special circumstances. (call in advance & documentation required)

Important Remarks
• Know your nearest emergency exit. In the event of a fire or an earthquake emergency, take all your personal belongings, leave the building, go to the lawn areas on Nutwood Avenue, and stay with class members. Do not use the elevator.

Withdrawal deadlines:
Feb 11, 2013 (Drop without a “w”)
Mar 8, 2013 (Drop without documentation)
Apr 26, 2013 (Documentation required)

Attendance: Make every effort to be in class on time. Attending class on time and entirely will earn you 3% grade point. You are allowed one absence for the semester; each additional absence will cost you 1% extra credit grade point. Being tardy or leaving early twice is equivalent to one absence.

Quizzes: Equally weighted quizzes are given weekly. Some are short writing assignments (see scoring rubric for details). One lowest scores will be dropped.

Calculators: Only non-graphing calculators are allowed on all exams.

Electronics Devices: Using personal electronic devices in class can distract instruction and learning. No personal electronic devices such as cell phones and laptops are allowed in class.

Business Calculus Workshop It's recommended that you enroll in one of the 135W workshops. Section 1 (19983) MWF 10-11 is designated for your class.

Math Tutoring Center (located in MH) is a great resource for help, but do make good use of instructor’s office hours.

Grade Distribution
2 Exams (20% each) 40%
Homework 15%
Quizzes & Writing 15%
Final Exam 30%
Total 100%

Grade Scale
93%-100% A
90%-92.9% A-
87%-89.9% B+
83%-86.9% B
80%-82.9% B-
77%-79.9% C+
70%-76.9% C
60%-69.9% D
0%-59.9% F
<table>
<thead>
<tr>
<th>Date Range</th>
<th>Dates</th>
<th>Topics</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Jan-13</td>
<td>30-Jan-13</td>
<td>Introduction&lt;br&gt;Online HW—MyMathLab&lt;br&gt;1.1 Limits (Numerical &amp; Graphical)</td>
<td>1.2 More on Limits &amp; Continuity&lt;br&gt;1.3 Average Rate of Change</td>
</tr>
<tr>
<td>4-Feb-13</td>
<td>6-Feb-13</td>
<td>1.4 Differentiation using Limits&lt;br&gt;1.5 Differentiation Techniques (Power &amp; Sum)</td>
<td>1.6 Differentiation Techniques (Product &amp; Quotient)&lt;br&gt;1.7 The Chain Rule</td>
</tr>
<tr>
<td>11-Feb-13</td>
<td>13-Feb-13</td>
<td>1.8 Higher-Order Derivatives&lt;br&gt;2.1 Find Max/Min Values</td>
<td>2.2 Graph with 1st and 2nd Derivative Info</td>
</tr>
<tr>
<td>18-Feb-13</td>
<td>20-Feb-13</td>
<td>Presidents’ Day</td>
<td>2.3 Rational Functions—Asymptotes &amp; Sketches</td>
</tr>
<tr>
<td>25-Feb-13</td>
<td>27-Feb-13</td>
<td>2.4 Absolute Max/Min Values using Derivatives</td>
<td>Review and Problem Solving I</td>
</tr>
<tr>
<td>4-Mar-13</td>
<td>6-Mar-13</td>
<td><strong>Exam 1</strong> — Up to § 2.4</td>
<td>2.5 Max/Min Problems</td>
</tr>
<tr>
<td>11-Mar-13</td>
<td>13-Mar-13</td>
<td>2.5 Max/Min Problems - Business Applications</td>
<td>2.6 Applications for Differentials</td>
</tr>
<tr>
<td>18-Mar-13</td>
<td>20-Mar-13</td>
<td>3.1 Exponential Functions&lt;br&gt;3.2 Logarithmic Functions</td>
<td>3.3—3.4 Applications: the Growth &amp; Decay Models</td>
</tr>
<tr>
<td>25-Mar-13</td>
<td>27-Mar-13</td>
<td>3.6 Elasticity of Demand</td>
<td>4.1 Area Under a Graph</td>
</tr>
<tr>
<td>1-Apr-13</td>
<td>3-Apr-13</td>
<td><strong>Spring Break</strong></td>
<td><strong>Spring Break</strong></td>
</tr>
<tr>
<td>8-Apr-13</td>
<td>10-Apr-13</td>
<td>4.2 Finding Area Using Anti-derivatives</td>
<td>4.3 Integrations on an interval&lt;br&gt;4.4 Definite Integrals</td>
</tr>
<tr>
<td>15-Apr-13</td>
<td>17-Apr-13</td>
<td><strong>Review and Problem Solving II</strong></td>
<td><strong>Exam 2</strong> — Up to § 4.4</td>
</tr>
<tr>
<td>22-Apr-13</td>
<td>24-Apr-13</td>
<td>4.5 Integration Techniques: Substitution Method</td>
<td>4.7 Integration Techniques: Table of Integrals&lt;br&gt;5.1 Surpluses</td>
</tr>
<tr>
<td>29-Apr-13</td>
<td>1-May-13</td>
<td>5.2 Cont. Money Flow Models&lt;br&gt;5.3 Improper Integrals</td>
<td>5.4 Probability&lt;br&gt;5.5 Expected Values</td>
</tr>
<tr>
<td>6-May-13</td>
<td>8-May-13</td>
<td>5.5 Normal Distributions&lt;br&gt;5.6 Volume</td>
<td>5.7 Differential Equations&lt;br&gt;6.1 Functions of Several Variables</td>
</tr>
<tr>
<td>20-May-13</td>
<td>22-May-13</td>
<td><strong>Comprehensive Final Exam</strong></td>
<td>2:30 - 4:20 P.M.</td>
</tr>
</tbody>
</table>
Learning Goals

To understand and appreciate the varied ways in which calculus is used in problem solving, such as graph sketching, function maximizing-minimizing, etc.

To understand and appreciate the varied applications of calculus to real-world problems, such as marginal analysis for cost and revenue, profit maximizing, elasticity analysis, etc.

To perform appropriate numerical calculations, with knowledge of the underlying mathematics, and draw conclusions from the results.

To demonstrate knowledge of fundamental calculus concepts, symbols, and principles in differentiation and integration.

To solve problems that require mathematical analysis and quantitative reasoning, such as model fitting, maximum-minimum problems, etc.

To summarize and present mathematical information with graphs and spreadsheets that enhance comprehension.

To utilize inductive and deductive mathematical reasoning skills in finding solutions, and be able to explain how these skills were used.

To explain the overall process and particular steps by which a mathematical problem is solved.

To demonstrate a sense of mastery and confidence in the ability to solve problems that require mathematical concepts and quantitative reasoning.

Writing Assignment Scoring Rubric (10 pts each)

| Format (1 pts) | Each assignment must be typed and printed on 8.5 by 11 papers with 1” margins on all sides using 12-point Times New Roman font, and single line spacing. Hand-written assignment will not be accepted. Title of your writing assignment should be bolded and followed by your name and the session of your class. For example, How to Graph Using the First Derivative of a Function Charles H. Lee Math 135—M&W 2:30-3:45 Each assignment should be a paragraph whose length is between 250 and 300 words. |
| Brief introduction or a description of your writing assignment (1 pts) | Suggestion: Describe to the audience (a HS grad) what your writing assignment is about. Discuss what specifically you do in this report. |
| Mathematical contents or solution process (6 pts) | Suggestion: Discuss the mathematical contents including any applicable terms, equations, variables and constants. Address any assumptions as needed. Most likely you are asked to explain certain concepts, describe a mathematical technique, to provide the details of a mathematical procedure. An example or a graph may be useful. Keep it simple, efficient, and easy to follow. Most importantly, make sure what you are writing is mathematically correct. |
| Application/Usage Discussion (1 pts) | Tell your audience the significance of the mathematical contents in your paper and/or the applications for which it can be used. |
| Correct grammar, spelling, punctuation (1 pts) | Complete sentences, proper punctuations and correct spelling. |