Course Instructor: Ivan Mann  
Office: 454 Campbell Hall  
Phone#: 934-9415  
E-mail: ivanmann@uab.edu  
Office Hours: 9:30-11:00 T Th, also drop-in, phone https://www.youtube.com/watch?v=Qo4pUUs3Q6Q for appointment.

Meeting times: T Th 5:00 pm-6:50pm  
Meeting location: HHB126  
Prerequisite: Grade of C or better in MA 106, MA 107 or equivalent  
Credits: 4 semester hours  

Important dates:  
First day of classes: Tuesday, January 8, 2019.  
Last day to withdraw without paying full tuition: Jan 14, 2019  
Last day to withdraw with a "W": Friday, March 1, 2019.  
Spring Break: March 11 - 17, 2019.  
Last day of class: Thursday, April 18, 2019.  
Test 1: Thursday, February 7, 2019; Sections 1.1-1.6, 2.1-2.5;  
Test 2: Thursday, March 7, 2019; Sections 2.8, 3.1-3.7;  
Test 3: Tuesday, April 16, 2019; Sections 4.1-4.5, 5.1-5.3.  
These dates are tentative. The particular sections to be covered in the tests are provided for information only and can be slightly shifted based on the actual pace. If there are changes I will tell you in plenty of time.  
Final exam: Wednesday, April 24 from 1:30–4:00pm; room to be announced later.

Course policies:  
• Please make sure that you are able to receive e-mail through your Blazer-ID account. Official course announcements may be sent to that address.  
• If you wish to request a disability accommodation please contact DSS at 934-4205 or at dss@uab.edu.
No books or notes will be allowed during any of the tests. If you need a basic formula, just ask me.

Methods of teaching and learning:

- 28 class meetings of 100 minutes consisting of lectures and discussions of examples and homework problems. Time for three in-class tests is included.
- Students are expected to undertake at least 8 hours of private study and homework per week.
- The online homework system WebAssign will be used (see below).

Course content:

1.1,1.2: Motivation: Slopes of tangents, velocity and other difference quotients
1.3-4,1.6: Definition of limit, limit laws, limits involving infinity
1.5: Continuity and classification of discontinuities (singularities), Intermediate Value Theorem
2.1-2: Tangents, velocities, other rates of change, definition of derivative, and derivatives as functions
2.3: Derivatives of polynomial, exponential functions and trigonometric functions
2.4: Product and quotient rules
2.5-7: Chain rule, implicit differentiation, related rates
2.8: Linear Approximations
3.1-3: Maximum and minimum values, Mean Value Theorem, shapes of curves
3.5: Optimization problems
3.6: Newton’s Method
3.7,4.1: Antiderivatives, distances, area
4.2-5: Integration, Fundamental Theorem of Calculus, Substitution
5.1-3: Derivatives of inverse, trigonometric, and logarithmic functions

Assessment procedures:

- Student achievement will be assessed by the following measures:
  - Regular online homework. Homework will be due one week after assignment. Feedback is provided when wrong answers are given. Students are encouraged to retake the homework problems (with randomly changed parameters) until they obtain correct answers. An unlimited number of takes is allowed during the week in which the set is available. Homework contributes 20% to the course average. Problems on tests are modeled after homework problems. Staying on top of homework is therefore extremely important.
  - Three in-class tests. Worst test will be dropped to take into account any circumstances. Two best tests contribute 25% each to the course average.
  - A 150-minute comprehensive final examination. The final contributes 30% to the course average.
- Your course performance is the maximum of your course average (which includes the final) and your final exam grade (each is a number between 0 and 100).
Your final grade is determined according to the following table:

<table>
<thead>
<tr>
<th>Course performance</th>
<th>88-100</th>
<th>75-87</th>
<th>62-74</th>
<th>50-61</th>
<th>below 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Grade</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>F</td>
</tr>
</tbody>
</table>

Tips:

- Past tests are available at www.math.uab.edu under Resources — Student Resources—Calculus Testbank.
- Help is available in the Math Learning Lab (HHB202) M-Th 9-8, F 9-5, if you can’t find me.
- By working steadily and regularly, you will increase your chances to succeed in this course.
- In calculus and school in general, as in most games, it is easier to get ahead and coast than it is to get behind and catch up.
- Remember, being a full-time student is a full-time job.

How to get started on Enhanced WebAssign:

1. Go to www.webassign.net and click on LOGIN on the left on your screen, and then click on I HAVE A CLASS KEY.
2. Enter the following course key: uab 4766 9248
   and proceed; enter uab if prompted for your institution.
3. When prompted to purchase an access code, select “...trial period” (you do not need to purchase an access code at this time. However, you must purchase an access code within two weeks to continue using the system beyond the two-week trial period. The system will prompt you to enter your access code when the deadline approaches.)
4. After your first registration, you can sign in as a returning user.
5. Should you run into technical problems Enhanced WebAssign provides technical support online and by phone.

Some recommendations

1. Get a spiral notebook to take notes in class.
2. Date each page as you use it.
3. Take notes and copy all examples into the notebook.
4. Plan study time close to class time.
5. Don’t wait until Sunday night to start on the online homework.

How to Study each Day

1. Read over your notes from class that day (or the previous day) and the relevant section(s) of the textbook.
2. Make a list of questions to ask me at the beginning of the next class. Put the questions on the next day’s page in the spiral notebook.
3. Review the recent problems.
4. Work on several new problems and read the appropriate new section of the textbook.
5. Write up as many solutions as you can so that you can copy these onto the board the next day.