Math 131: Essentials of Calculus  
Spring 2015  
Course Syllabus

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Class Meetings: MWF 1:50 – 2:50 Room 141 BDK Science  

Office Hours: See course website  
Text: *Essential Calculus: A One Semester Introduction to Calculus (3rd draft – green cover)*, 
B. Shelburne, custom published

**Overview of Course:** Math 131: Essentials of Calculus is a one semester calculus course. It differs from Math 201: Calculus I in that it does not cover the differentiation and integration of trigonometric functions, it covers more integration, and it does not serve as a pre-requisite for any other advanced calculus course offered by the department. Students wishing to go on and take Math 202: Calculus II should drop Math 131 and take Math 201 instead.

**Calculators:** Students are required to have a graphing calculator. I suggest a TI-84 type. You may **not** use a graphing calculator which has Symbolic Algebra Capability, for example a TI-89, TI-92 or Voyage 200. Unless specifically stated calculators are only used to check your work!

**Outline of Course Material:** The material for the course is covered in 25 units. Units 1 – 3 are review material (Review Test #1). Units 4 – 11 cover finite limits and differentiation including the definition and meaning of the derivative and the rules for differentiation (Test #2). Units 12 – 18 cover applications of the derivative, intervals of increase and decrease, concavity, 1st and 2nd derivative tests for relative extrema and optimization problems (Test #3). Finally, Units 19 – 25 cover anti-differentiation, Riemann sums, the definite integral, the Fundamental Theorem of Calculus, rules for integration including integration by parts, and applications of the definite integral (Test #4).

**Grading**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Review Test</td>
<td>50 pts</td>
</tr>
<tr>
<td>Three 100 point tests</td>
<td>300 pts</td>
</tr>
<tr>
<td>Quizzes</td>
<td>75 pts (quiz average times 75)</td>
</tr>
<tr>
<td>Homework</td>
<td>75 pts (homework average times 75)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200 pts</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>700 pts</td>
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Letter grades will be determined by the standard 90% - 80% - 70% - 60% scale applied to 700 points. Scores within 3 percentage points of the 90% – 80% – 70% - 60% cut-offs will be modified by pluses or minuses. For example, an A- is between 90% (inclusive) and 93% while a B+ is between 87% and 90% (exclusive).

**How Classes Will Be Run**

Lecture notes on the material to be covered will be passed out at the beginning of each class; this way you will have a complete set of notes on what was covered in class. Part of each class you’ll be working together on exercises which are intended to lead you through the process of learning and understanding the course material. The best way to learn math is to **do** math.

1. In order for this to work properly you **must** come prepared to work the exercises in class. This means that you have read and understood the assigned reading since class exercises will be based on the material you read.
2. Working together will allow you (plural) to learn the material. If you don’t understand ask the person next to you to explain as he or she may be able to answer questions better than me. If you ask me a question I might ask someone else to suggest the answer. So come prepared.
3. Homework (due the next class period) will be assigned each day based on the material you read to prepare for class and based on the in-class exercises. The intention is that you will leave class knowing how to do the homework assigned.

4. Generally I will not go over assigned homework problems in class. If you have homework questions you can either seem me outside of class during my office hours, arrange an alternate time to see me outside of class, check out the math workshop, or e-mail me questions. If you e-mail me ahead of class time with a homework question I’ll try to answer it at the beginning of class.

Class Attendance & Class Attendance Bonus: You are expected to attend every class. If a class is missed you are still responsible for any missed material (i.e. all lecture notes will be on-line). If you miss no more than 3 classes, 20 points will be added to your total points for the course. Note: Absences due to legitimate university sponsored events will not be counted provided I receive notification ahead of time.

Homework: Daily homework will be assigned, collected and checked that it’s done correctly.

Assignment sheets for homework problems will be passed out. These should be passed in with homework stapled to it; don’t forget to write your name.

The textbook has no answer key for the homework. However, most homework problems will suggest a method for checking your work. The idea is to force you to think if the answer arrived at makes sense and is correct. In any case feel free to check your answers against someone else’s answer. I encourage collaboration and working together on homework assignment but if you work with someone each of you must turn in a separate copy of the homework. My expectation is that all turned in homework is correct.

Rules for Homework Assignments

1. All homework must be done in pencil (that way you can erase your mistakes)
2. Show work and clearly indicate answers by boxing them.
3. Use clean ruled 3-hole punched 8 ½ by 11 notebook paper. Do NOT rip pages out of a spiral bound note book. Do not use scrap paper.
4. Staple multiple pages together,

   Homework not conforming to the above will result in loss of credit. I’m serious!

Late homework will not be accepted if passed in more than one class meeting late - No exceptions! For example, a homework assignment due on Wednesday will not be accepted if passed in after the following Friday. This is because it’s important to keep up with the material.

Quizzes and Homework: At the end of class each Friday there will be a quiz with questions taken from or based on the homework; that is all quiz question are homework questions with (possibly) some of the constants changed! Quizzes will be worth 10 points with lowest quiz grade dropped at the end of the course. The average of the remaining quizzes will be scaled to 75 points.

Make up quizzes will not be given but if you know you will be absent from class because of a university sanctioned (e.g. athletic) event, you may make arrangements to take the quiz early.

One-Time Test Retake: If you do poorly on one test you can redo the same test as a take home. The test grade earned will be either the average of the in-class test and the take home retake OR 80% whichever is lower. For example if you make a 50% on the in class test and a 100% on the take home retake, your grade for that test will be 75%; If you made a 70% on the test and a 100% on the retake, though the average is 85%, the grade for the test would be 80%.

1. You may only do this only once!
2. You are not allowed to consult with anyone on the retake. This especially applies to other class members and math workshop tutors. You may make free use of your text book, class notes, class handouts, course website materials and/or homework assignments but no other sources. Think serious about Wittenberg’s Code of Academic Integrity!

3. You will have one week to complete the take home test (but you may hand it in early). Do not need to hand in the original in-class test. I strongly suggest not looking at the old test but to treat the retake as a completely new test.

4. Since time is not a factor for the take-home retake, grading will be stricter. Therefore it is strongly suggested that you do not copy correct answers from the in-class test to your take home retake as grading will be stricter. Redo each question.

5. If you elect to retake a test you must contact me within 24 hours of the time a return the test so that I can give you a clean copy for the retake.

6. Obviously this offer is not valid for the final exam.

Honor Code. All quizzes and tests will carry the standard pledge which must be signed:

_I affirm that my work upholds the highest standards of honesty and academic integrity at Wittenberg and that I have neither given nor received unauthorized assistance._

Note: If you do take a quiz early you are not allowed to discuss it with anyone and if you know someone who has taken a quiz early you are not allowed to ask questions of them.

This is especially important for a take home retake. You may not, repeat not, seek help from anyone. If you have questions see me.

An honor violation involving a test will result in a grade of 0 on that test for all parties. An honor violation involving a quiz will result in a grade of 0 on that quiz plus a loss of 10 points (out of a possible 75) from the quiz point totals. A report will be submitted to the Honor Council (which is not good!)

Note: Homework assignments are not pledged.

Classroom Behavior: Over the years a couple or three things began happening in class that really bug me! So I'm going to request that you do the following

1. Please - Switch off your cell phones and no texting in class!
2. Please - don't get up in the middle of class to visit the water fountain or the rest room - unless it is ABSOLUTELY NECESSARY

Thank you!

Finally – Your learning in this course is important to me. I invite you to talk with me about ways to ensure your full participation in this course. Please be aware that Wittenberg is committed to providing reasonable accommodations for students with documented disabilities. If you are eligible for course accommodations because of a disability, you need to register with the Academic Services Office, 206 Recitation Hall. After you register, give me your self-identification memo from Academic Services and arrange to talk with me about your learning needs privately in a timely manner. Early identification at the start of the term is essential to ensure timely provision of services. If you have questions or would like more information about services for students with disabilities, please contact the Academic Services, 206 Recitation Hall, extension 7891.