
Instructor: Dr. Laura Taalman

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Class Times

Section 02: MW 10:10–11:00 and TuTh 9:30–10:45, in Burruss 033.

Section 04: MW 11:15–12:05 and TuTh 11:00–12:15, in Burruss 033.

Office Hours

Mondays 2:00-4:00, Tuesdays 3:30-4:00, Thursdays 3:30-4:00, and by appointment.

Textbook

Integrated Calculus, Taalman, first edition hardcover copyright 2005. (Please note that previous softcover “coursepack” editions are not sufficient.)

Class Website

www.math.jmu.edu/~taal/231_2005.html. Keys to quizzes and tests will be posted weekly. Feel free to look at my 231 websites from previous years if you like; however, be warned that I will *not* use the same quizzes and tests, and that we may cover slightly different material in a slightly different order in this class.

What is Math 231 and Should I Be In This Class?

The Math 231–232 sequence covers all of the material in Math 235 as well as precalculus and algebra material, and some material from the beginning of Math 236. This course is for those people that feel they need more precalculus or algebra preparation while learning calculus. You should *not* necessarily take this course simply because you have not had calculus before (many people in 235 have not taken calculus). You should *not* take this course because you think it will be “easier” or “less work” than Math 235. In fact, most 231–232 students feel that this course is *harder* and *more work* than Math 235, but that this course gives them a better understanding of the material and enables them to successfully learn calculus while improving their algebra and precalculus skills. You should probably *not* take this course if you tested into Math 235 or above on the Placement Exam.

Grades

There will be three tests (100 points each), ten quizzes (10 points each), and one final exam (200 points). According to the whims of random probability (and the roll of a die) there will be approximately seven collected homeworks (10 points each), seven collected “Problem Zero” assignments (5 points each), and ten attendance quizzes (2 points each). There will be a few very tiny opportunities for extra credit; for example, each new typo that you find in the book will be worth 1 point. I will drop your lowest quiz score, your lowest homework score, your lowest “Problem Zero” score, and your lowest three attendance quizzes. At the end of the semester I will use the following formula to determine your numerical score:

$$\text{numerical score} = \frac{\text{earned}(T + Q + H + Z + F + A + E)}{\text{possible}(T + Q + H + Z + F)}$$

I will use statistics to give you a letter grade for the course based on this numerical score, the class average, and historical class averages. (Please note that I do *not* use a predetermined scale such as 90=A, 80=B, etc.) I reserve the right to decide borderline grades based on class participation, effort, and whether your performance improved or declined over the course of the semester.

Attendance

If you must miss class on a Monday or Tuesday, you do not have to tell me about it. However, you should give your homework to a classmate so they can hand it in for you if it is collected that day. **You may not**

make up missed homework or “Problem Zero” collections or attendance quizzes. Wednesday classes will be used as “study time” and attendance is optional but strongly encouraged. Three of the Wednesday classes will be test review days. There will be a quiz or test every Thursday, and therefore I must know of any Thursday absences *in advance*. At my discretion, I may excuse you from a quiz or a test if you ask me in advance. **If you miss a quiz or a test without first being excused, you will not be allowed to make it up.** However, if you have a problem or emergency and could not speak to me in advance, you should still come to me and explain your situation. My sympathy with your plight will be determined by how quickly you speak with me.

Problem Zero and Homework

Each day a student in the class will roll a die to determine if Problem Zero or homework will be collected. Occasionally I may “force” collection (especially if the dice have not produced any collections recently). Problem Zero will be graded for effort and completeness. A careful reading of the text is considered part of the homework, and should be reflected in your work for Problem Zero. Collected homeworks will be graded for completeness and sometimes for accuracy on selected problems. I am well aware that partial answers are in the back of the book for many of the assigned problems; simply copying down those answers will not be considered sufficient. The single most important predictor of your grade in this class will be how much homework you do.

Quizzes and Tests

Thursday quizzes will consist *entirely* of homework problems (possibly with minor changes). The syllabus lists which sections are fair game for each quiz. Tests will cover all material covered since the previous test, and will consist *mostly* of homework problems. The final exam will be cumulative.

Calculators

A graphing calculator is required for this course (I recommend the TI-83, simply because this is the calculator that most of your classmates will have). However, there will be quizzes and exams on which the use of calculators is not permitted, so don’t use your calculator as a crutch! If your only calculator is a TI-89 or a TI-92 or any fancy calculator capable of symbolic manipulation, differentiation, etc, please see me as soon as possible, since I will ban those types of calculators from *every* quiz and test.

Getting Help

Please feel free to ask me for help! It is best to contact me by email or with an instant message. For time-sensitive matters you can call me at my home number (see above) anytime before midnight, including on weekends. Feel free to stop by or call my office anytime, even outside of my office hours. I am not usually there outside of office hours, but if you can find me I will be happy to help you. You can also get help at the Math and Science Learning Center (Wilson 104) most days of the week. The Math Department also keeps a list of private tutors that you can hire for an hourly fee, but talking to me or going to the Learning Center is absolutely free!

FAQ and Random Smatterings of Advice

- If you want to report a typo in the book you have to tell me *in person* (not via email or phone) so we can look it up in my book.
- I’m bad with remembering names, so bear with me if it takes me a while to link your name to your face; remind me what your name is if I look confused! If you come to my office hours or talk to me often I will be more likely to remember your name.
- I do not use a predetermined grading scale, so don’t try to guess your grade in my course; ask me instead. Remember that you can NOT assume that 80% is a B, 90% is an A, etc. (Technically, this means that there is not a “curve” in this class, since there is no scale to curve *to*; however, it is effectively somewhat the same as having a curve.)
- You only need to bring your book to class on Tuesdays, for the problem sessions.

- Please note that Tuesday problem sessions will take place *after* you have handed in any homework for that day, so make notes on separate paper about which problems you want to discuss in the problem session (in case your homework is already collected).
- Read each section in the book before starting the exercises, and write Problem Zero so that it will help you with the homework and when it's time to study for an exam. Just copying down the "boxed" theorems and definitions is not sufficient. Using class notes as Problem Zero is not allowed.
- Do all the homework problems as soon as possible after they are assigned; in particular, leave yourself time to seek help in case you need it.
- Don't just copy the homework answers from the back of the book! I wrote those answers and I will be able to tell!! Show all work when you do your homework so you can read it later, and so you can practice for showing your work on quizzes and exams. I will look at the quality of your work when I grade your homework.
- Make sure you follow all the directions in the homework problems. For example, if the problem asks you to check your answers with a graph, do it and sketch the graph on your paper! If it asks you to do something by hand then don't use your calculator. If you are supposed to use a particular method then make sure you use that method. I will look for this when grading homework problems.
- The true/false questions in the text ask you to provide reasons (if true) or counterexamples (if false). When I grade your homework I will often check to see if you are providing reasons and counterexamples; you will lose points if you are just writing "True" and "False" for your answers.
- I assign a lot of homework for two reasons: First, so you will be forced to do a lot of work on each section as it happens, and not just a few days before the exams. Second, so that you will know exactly what will be expected of you on quizzes and tests (since they will be taken almost entirely from the homework problems).
- Don't fall behind; seek help quickly if there is something you don't understand.
- Come to class and participate while you're there! If you miss class make sure that you get notes from a classmate as quickly as possible.
- Please participate in class! Ask lots of questions!! It makes class more interesting, forces me to slow down a bit, and helps the other students in the class. I truly believe that no question is stupid, even "huh?". The point of lecture is for me to help you learn, not for me to bore and confuse you to death.
- It is my job to help you learn the material any way I can. However, ultimately it is *your* job to learn the material. Take responsibility for your learning!! That means take the time to actually think about the material and seek help when you need it.
- Be ready with questions for the problem sessions. When working in groups try to contribute as much as possible. Work at the board with chalk, not huddled together in your seats. One point of having you work at the board is for *you* to figure it out (as a group), not for me to come and tell you how to do it. Another is that if you are writing on the board, I can easily see and fix any mistakes in your math or notation.
- Math takes time to learn; don't assume that you can learn material a few days before an exam.
- Try explaining the material out loud to a classmate or your roommate.
- Know what material you will be expected to know for a quiz or a test.
- To prepare for a test or a quiz, be sure you know concepts as well as calculations.
- Make up test problems and see if you can answer them, or have a classmate make up problems for you to answer.

- If you are really reading all of these pieces of advice then I am very impressed! You are starting off on a good foot in this class and you will go far!! The secret word is: kitty. Keep it to yourself; it may earn you some extra credit later on.
- If you get a bad grade on a test or quiz, don't panic; instead, come see me for help and take the time to learn what you missed.
- Worry more about learning the material than about your grade or your GPA.
- Math is about *understanding*, not memorizing; if you are memorizing a lot of things you may be studying the wrong way.
- Work in groups and talk about math as much as possible outside of class.
- Hang out in the Math and Science Learning Center and find people to work with.
- Stay in touch with me; let me know if you are having problems in or out of class. I am always happy to talk to you about any issue.

Advice from Previous 231/232 Students

- Keep up with homework. Start off good so that when the material gets more difficult, you can allow room for mistakes.
- Keep up on assignments. Do the work for the day that day so you don't get behind in any section. This also helps you identify your weaknesses. Read every section well and make notes. Good luck!
- Do the homework the day you cover that section in class. Read the book. Go to class and pay attention.
- Absolutely do your homework. Reading the book before you come to class makes the lecture so much clearer. Even if you don't have time to read, just skim. Go to the math help center until Mr. Cunningham knows your name.
- Read the book!!! Don't think that just because you took notes you don't have to read the book. You do.
- Don't hesitate or wait until the last minute to ask for help. Don't miss class on quiz day. Do the homework the night it is assigned. Read the section immediately before and after class. Participate in class discussion. See the professor in her office for extra help.
- Make sure you do your homework as soon as it is assigned or you will put it off and put it off and then you are going to have to work ten times as hard to get back on track.
- Find friends to work with and do so all year long (preferably the same people).
- Do homework as soon after class as possible. Don't hold off until the end of the week.
- Outline sections same day as class. Do all homeworks. Ask questions.
- You have to do your homework, like the day it is assigned, and try to do it in the math lab so you can get feedback immediately on the things you don't understand.
- Stay on top of everything!! Even if you know the material, do your work!!
- GO THE THE MATH/SCIENCE LEARNING CENTER! I live there, this place is great. Mr. Cunningham and all the students that work there can answer any question you have. Also, do the homework on time, don't cram. It's just too much info to wait until the last minute.
- Ask questions if you're confused at all. Do the homework and get help as much as you need it. Don't feel stupid getting help... everyone does sometime.