

Syllabus and Course Information

MAA 4212 — Advanced Calculus 2
Section 01B8, Spring 2014
MWF 7th period, LIT 217

[Link to class home page](#)

[Instructor and contact-information](#)

[Office hours](#)

[Textbook](#)

[Syllabus](#)

[Exams](#)

[Homework](#)

[Grading system](#)

[What if you miss an exam?](#)

[Attendance policy](#)

[Student Honor Code](#)

[Miscellaneous](#)

Instructor: Dr. David Groisser

Office: Little 308 (southeastern quadrant of building)

Phone: (352) 294-2307

Email: groisser@ufl.edu

I receive a ton of email, so please read this before emailing me:

I won't answer math questions by email.

I will *never* provide *any* grade information by email.

I won't answer anonymous email, or email that lacks an *informative* subject line and your full name.

In the "Sender" field I should see something like "John Jones", or "jj@ufl.edu (John Jones)", or "johnjones@ufl.edu"; I should *not* see "jj@ufl.edu" or "gr8g8r@hotmail.com". In the "Subject" field I should see something like "May I make an appointment with you?", not "Help! Urgent!" Otherwise, your email will look like spam, and I'm likely to delete it unread.

Office Hours:

Tentatively Monday 5th period (11:45-12:35), and Wednesday & Friday 9th period (4:05-4:55). Please come early in the period or let me know to expect you later; otherwise I may not stay in my office for the whole period. See my [schedule](#)

office hours may see me by appointment on most weekdays (but ***never on a Thursday***).

[for updates](#). Students who can't make scheduled

If you have the flu or similar contagious disease, or think you might, please do not come to my office.

Textbook: Maxwell Rosenlicht, *Introduction to Analysis*.

Syllabus (course content):

Ideally, Chapters 4.6–10 of Rosenlicht, but there will be some omissions, and I may not stick religiously to the presentation in the text. For some topics I will likely follow the presentation in Dr. McCullough's notes (available [here](#)). Topics will include: uniform convergence; a careful treatment of differentiation and Riemann integration of functions of one variable; sequences and series of functions; differentiation of integrals depending on a parameter; the Fundamental Theorem of Ordinary Differential Equations; differentiation of multivariable functions; the Inverse and Implicit Function Theorems, and (time permitting) multiple integrals.

Exams: There will be two midterm exams, a cumulative final exam, and possibly an in-class "SLO exam" (see below). I have not yet decided whether the midterms and final will be in-class or take-home exams; there may be at least one of each type. I probably will not make the decision about exam-type until I know how many students will be in this class. I prefer take-home exams for a class at this level, but security and the grading of take-home exams

1 of 4 are difficult when there are more than about 12 to 15 students. I may try to arrange for two-hour non-take-home midterms a three-hour non-take-home final

one of each type. I probably will not make the decision about exam type until I know how many students will be in this class. I prefer take-home exams for a class at this level, but security and the grading of take-home exams are difficult when there are more than about 12 to 15 students. I may try to arrange for two-hour non-take-home midterms and a three-hour non-take-home final ("in class" exams, but not literally). If I do give you take-home exams, I will probably give you 48 hours for a midterm and either 48 or 72 hours for the final.

SLO exam. State law requires there be an Academic Learning Compact (ALC) for each undergraduate degree offered by the university, and that the relevant department(s) assess, by some method other than course-grades, whether the stated Student Learning Outcomes (SLO's) have been achieved. For the Bachelor of Science in Mathematics, some of this assessment is supposed to take place in MAA 4212. For this purpose, there *may* be a common, in-class exam given to all three sections of the course; the decision has not been made as of this writing. If there is such an "SLO exam", it will take place on Monday, April 21, and will account for 5% of your grade.

My *rough estimates* for the dates of the midterms are Monday, Feb. 3 and Monday, Mar. 24. *These dates are subject to change.* The actual dates will depend strongly on our rate of progress. I will give you at least a week's notice before any exam. For the weights of the midterms and final exam, see below.

If we have a non-take-home final, it will start at the day and time assigned us by the Registrar (Thurs. May 1, 10:00 a.m.). If we have a take-home final, I may allow different students to pick up and return their exams at different times, to work around their other exams as best possible, but no one will be allowed to start a take-home final before the official start of UF's final exam period (Sat. Apr. 26, 7:30 a.m.) or to hand it in after Thurs. May 1 at 12:00 noon.

Note: By registering for this section of this class, you are agreeing to be available for a non-take-home final exam on Thurs., May 1, from 10:00 a.m. – 12:00 noon.

You are expected to arrange your post-semester travel plans accordingly, and should make those plans NOW. I have little sympathy for students who claim they are "unable" to take the final exam at its scheduled time, or that to do so would pose a hardship. If you put yourself in this position, expect a zero for your final-exam grade.

Homework: There will be regular homework assignments. A subset of the exercises will be collected at intervals of one to two weeks. Do the homework when I assign it; if you procrastinate until the due-date is announced, you won't finish the homework in time. To help motivate you to do all the assigned problems, I will not announce which ones I am collecting until shortly before they are due.

The length and frequency of assignments will vary. Please see the homework page for rules concerning homework. This homework page is also where assignments will be posted, so you are responsible for checking it frequently.

It is impossible to overstate the importance of doing the homework.

Grading system: The system I use in this class is based on the premise that some people put their best foot forward on homework and some do it on exams. It works as follows:

1. After each homework or exam, I decide a grade-scale for that item according to the philosophy "A = excellent, B = good, C = satisfactory, D = unsatisfactory but passing". In setting these scales, I don't have a predetermined grade curve or predetermined percentages for letter grades.
2. At the end of the semester, I compute a numerical "raw score" for each student according to three different weighting schemes, which will be the following *if there is no SLO exam*:

20% each midterm (total 40%), 20% final, 40% homework;

20% each midterm (total 40%), 40% final, 20% homework;

15% each midterm (total 30%), 30% final, 40% homework.

If there *is* an SLO exam, then the percentages above will be multiplied by .95, and the SLO exam will count for the remaining 5%.

3. By applying the weighting-schemes above to the cutoffs for exams and homework, I construct three different sets of raw-score grade-cutoffs. The homework assignments do not all count equally; longer assignments count more than shorter assignments.
4. Using these data, I obtain three letter grades for each student. The final grade I assign is the highest of these three.

I think that the weighting schemes above are varied enough to allow every student a reasonable chance to show me his or her best work, while at the same time not simply throwing away low scores that do, in fact, tell me something. If any student has another reasonable weighting scheme he or she thinks should be on the list above, I'll consider it, provided it is presented to me early enough. If at the end of the semester, none of the above schemes is giving you the grade you want, that will not be a good enough

I think that the weighting schemes above are varied enough to allow every student a reasonable chance to show me his or her best work, while at the same time not simply throwing away low scores that do, in fact, tell me something. If any student has another reasonable weighting scheme he or she thinks should be on the list above, I'll consider it, provided it is presented to me early enough. If at the end of the semester, none of the above schemes is giving you the grade you want, that will not be a good enough reason for me to consider another scheme in which your best component is given inordinately high weight, and your worst component inordinately low weight.

More about grading.

The grades that UF currently allows instructors to assign are A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and E; for the grade-points corresponding to these letter-grades, see this catalog page .) All of these are
grades are
possible in this class, except the D-.

In my approach to assigning minus-grades (the same as the approach used by my professors when I was in college), a B-, for example, is *not* the lower end of the B-range; it is *slightly but strictly below* the bottom of the B-range, and means that your work falls a little short of "good". (Said another way: another professor whose estimation of whether your work is satisfactory is the same as mine, but who regards B- as meaning "the low end of the 'good' range", would *not* assign you a B-; he/she would assign you a C+.) This philosophy of what minus-grades mean is consistent with the degree-requirements for most majors at UF: courses that you've taken count only if you get a "flat" C or higher, because a C- means that your performance was *less than* satisfactory—not that it was *barely* satisfactory—and therefore that you did not satisfactorily complete the course. This philosophy is also consistent with UF's S-U grade option

Similar reasons are behind why I do not give the D- grade. "D" means "unsatisfactory but passing". I have always considered the next step below "barely passing" to be failing, which at UF is the E grade.

Since I don't determine the exam-grade cutoffs ahead of time, I can't tell you in advance exactly how many points you'll need to get a particular grade for the course. For examples of my past grade-scales, see the grade-scale pages for the last time I taught Advanced Calculus 1 (Fall 2013) and Advanced Calculus 2
2009). **However, there is** (Spring

no guarantee that this semester's grade cutoffs will be close to those of the past classes; they could be higher or lower. Also, be aware that prior to Summer 2009 UF had a bizarre "plus-grades but no minus-grades" system that forced me to decide whether to assign, for example, a C+ or a B to someone who I thought deserved a B-, in which case I rounded up to a B. So the cutoffs that you see in my Spring 2009 (and earlier) classes for A, B, and C are approximately where I'd have set the cutoffs for A-, B-, and C- had these grades been assignable at the time, which would have made my class GPA's a little lower.

What if you miss an exam?

If you miss an exam for a valid reason, I will work out something with you that is as fair as is feasible. I almost never give make-up exams, because except in very large classes (which I don't teach) with cookie-cutter exams (which I don't give), there is no such thing as a fair make-up exam. To create a make-up exam that's not extremely unfair, either to the student taking it or his/her classmates, usually takes me at least six hours. Therefore, rather than giving you a make-up exam, usually I will just give you a "bye" and simply re-adjust the weights of the other components of your grade.

If you are too ill or incapacitated to take an exam, you should notify me by phone or email before the exam starts, even if it's just a few minutes before.

Attendance policy: Students are expected to attend every lecture, barring such things as illness, weddings, funerals, family emergencies, team activities, and religious holidays of which I am informed in advance. **Students who choose (for other reasons) not to attend class regularly are forfeiting the right to my help in office hours, including explanations of their mistakes on homework and exams.** Also, be aware that the University of Florida Attendance Policies contain

the following paragraph:

The university recognizes the right of the individual professor to make attendance mandatory. After due warning, professors may prohibit further attendance and subsequently assign a failing grade for excessive absences.

I expect students to arrive *on time* and to pay attention for all 50 minutes of the period. Coming late to class is disruptive to both your instructor and your classmates. If a non-optional time commitment (e.g. a class the previous period in a distant location) will force you to be late on a regular basis, let me know at the start of the semester.

Students with a contagious illness are asked to exercise good judgment and to be considerate of their classmates and instructor when deciding whether to come to class. Coughing and sneezing in an enclosed space like a classroom or office is a wonderful way to spread germs.

Student Honor Code. UF students are bound by The Honor Pledge, which states:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for

Student Honor Code. UF students are bound by the Honor Pledge, which states:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: *“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”*

The Honor Code (here) specifies a number of behaviors that are in violation of this code, and the possible sanctions. Furthermore, students are obligated to report to appropriate personnel any condition that facilitates academic misconduct. If you have any questions or concerns about student conduct, please consult me.

Miscellaneous:

Unless I say otherwise, you are responsible for knowing any material I cover in class, any subject covered in homework, and all the material in the textbook chapters we are studying. You are also responsible for most of MAS 4105 and the Calculus 1-2-3 sequence (MAC 2311-12-13 or the equivalent). However, remember that you should not base any proofs in this class on theorems that were stated but not proved in the lower-level calculus sequence (unless we previously proved these theorems in MAA 4211).

Do not use your personal computer in class. Ditto for your cellphone, except to receive emergency alerts from UF. In particular, do not read or write text-messages in class. You may leave your phones in “vibrate” mode so that if UF sends an Emergency Alert, you will receive it. Note that in this case everybody’s phone will be vibrating at the same time, so it will be obvious that something significant is happening. If *your* phone starts vibrating and nobody else’s does, please ignore it. Cell-phone ringers, audible text-message alerts, etc., should be turned off while you are in class. (If you ever need me to make an exception to this rule, e.g. if you have a seriously ill family member, let me know before class starts.)

Please avoid disruptive or distracting noises, such as the tapping of pencils or feet, or the zipping and unzipping of backpacks several minutes before the end of class.

Course goals:

For the student to master the course-content.

For the student to achieve proficiency in communicating mathematical ideas precisely and clearly, in written form.

Tentative, approximate weekly schedule of lectures: Click here . Students are expected to read the relevant material in the appropriate chapter-section of the textbook no later than the day after we cover that material in class, and preferably earlier.

Religious Holidays. The following is part of the University of Florida Policy on Religious Holidays

:

“Students, **upon prior notification of their instructors**, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith.”

Accommodations for students with disabilities. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

Teaching-evaluations. Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.