Syllabus for Math 241, Calculus 3, Spring 2018

Professors
Prof. Anema, Department of Mathematics.
Prof. Escobar, Department of Mathematics.
Prof. Rezk, Department of Mathematics.

Teaching Assistants (TAs)
These are your small discussion section instructors, and are the people you will email with all of your more private (course related) questions. Here is a list of all TAs' names, emails, and discussion section times/locations.

Email Policy
All private questions (for example concerning your grade or because you are ill) should be emailed to your discussion section TA. (Their email address can be found here).

When you send an email to your discussion section TA, clearly write your name somewhere and start the subject line with “Math 241”. This will make sure that your email isn’t lost.

All emails must be sent from your “@illinois.edu” address.

Piazza
There are more than 1000 students in this class.

All non-private questions should be posted to MATH 241 Piazza Forum. Questions about the course material, or the organization of the course, that potentially are of interest to everyone in the class should be posted on Piazza. Make sure that your question is not already answered in the provided course information.

All announcements will be posted on MATH 241 Piazza Forum.

Make sure you are signed up for Piazza. You will receive a email directing you to register for Piazza by the end of January 15th. If you don't get it notify your discussion section TA as soon as possible (Their email address can be found here).

When posting on Piazza, please use the subject line wisely so that other students can easily tell whether your question is also relevant for them.

Questions and answers posted in Piazza should be friendly and courteous. Any posts in Piazza deem to be inappropriate, offensive, or unrelated to this course, may result in the termination of the service.

Course webpage
- This syllabus and other course information will be kept on the course webpage: http://go.illinois.edu/math241sp18
- You are expected to be familiar with its content.

Course Description
This is the third semester in the calculus sequence. The course covers chapters 12, 14, 13, 15 (not section 15.5), and 16 of the textbook, though not in that order. This course will be very fast-paced, and are expected to have mastered the prerequisite material (up to and including Math 231, Calculus II).

The focus of this course is vector calculus, which concerns functions of several variables and functions whose values are vectors rather than just numbers. In this broader context, we will revisit notions like continuity, derivatives, and integrals, as well as their applications (like finding minima and maxima). We’ll explore new geometric objects such as vector fields, curves, and surfaces in 3-space and study how these relate to differentiation and integration. The highlight of the course will be theorems of Green, Stokes, and Gauss, which relate seemingly disparate types of integrals in surprising ways.

For most people, vector calculus is the most challenging term in the calculus sequence. There are a larger number of interrelated concepts than before, and solving a single problem can require thinking about one concept or object in several different ways. Because of this, conceptual understanding is more important than ever, and it is not possible to learn a short list of “problem templates” in lecture that will allow you to do all the HW and exam problems. Thus, while lecture and section will include many worked examples, you will still often be asked to solve a HW problem that doesn’t match up with one that you’ve already seen. The goal here is to get a solid understanding of calculus so you can solve any such problem you encounter in mathematics, the sciences, or engineering, and that requires trying to solve new problems from first principles, if only because the real world is sadly complicated.
**Classes**

Prof. Anema: Teaching Lecture AL2 (MWF, 1-1:50pm, 314 Altgeld Hall) and Lecture BL2 (MWF, 2-2:50pm, 314 Altgeld Hall)

Prof. Escobar: Teaching Lecture AL1 (MWF, 10-10:50am, 314 Altgeld Hall)

Prof. Rezk: Teaching Lecture BL1 (MWF, 12-12:50pm, 100 Noyes Lab)

- The discussion sections meet on Tuesday and Thursday. [Here is a list of all discussion section times/locations.](#)
- You are expected to attend each class meeting, both lectures and discussion sections.
- In order to attend lectures or discussion sections, you must be a registered for the course. If you wish to Audit, you must formally register an Audit with the University.

**Textbook and online homework access purchasing**

- The textbook is *Calculus, Early Transcendentals, 8th Edition*, (with enhanced Webassign) by James Stewart, published by Thompson Brooks-Cole.
- We will be using the Webassign online homework system. Visit [information on obtaining the textbook and webassign](#) for your options to purchase the textbook and an access code to the online homework system, provided by WebAssign.

**Tutoring Hours**

[Information on tutoring hours](#) will be kept on the course wiki. Tutoring hours are held most evenings by your small discussion section instructors (your TAs). You can attend these whenever they are offered, and receive help with the material of this course.

**Exams**

**All exam locations will be announced the week prior to the exam, information to be posted at:** [Information for Midterm 1](#), [Information for Midterm 2](#), [Information for Midterm 3](#).

Mark these exam dates on your calendar now:

- Midterm One: 7:15 – 8:30 pm, Tuesday, February 13
- Midterm Two: 7:15 – 8:30 pm, Tuesday, March 13
- Midterm Three: 7:15 – 8:30 pm, Tuesday, April 17
- Final Exam: Combined and cumulative, date and time TBA. For more information, see [Information for Final Exam](#).

- All exams will be closed book and no notes. No calculators or other electronic devices will be permitted.
- Exams will start promptly at their designated time, so arrive early.
- **Bring your student ID** both for identification and because you MUST know your UIN which is printed there. You should also know your NetID as well as which discussion section you are registered for.
- Any student who fails to know their UIN for an exam, or incorrectly records their UIN on an exam, will receive a grade of zero on that exam.

**Conflict Exams**

If you have a conflict with one of the midterm exam times, please consult the [university policy on evening midterm exams](#). If you have a conflict with the final exam, please consult the [university policy on final exams](#). Based on that, if you qualify to take the conflict exam, you must submit a properly formatted Conflict Request Form (detailed below) **prior to the deadline for each exam.** Your professor reserves final judgment as to which exam you will take. Conflict midterm exams are held the same night as the regular midterm exams from 9:15 - 10:30pm (you will receive an email confirming you are registered with the location of the exam.) As with the regular exam times, the exam will start promptly, so arrive early with your photo ID. Any student that shows up to take a conflict exam without having registered by the appropriate deadline, will receive a zero on that exam.

You must submit a conflict registration request form for each exam that you have a conflict with.

For the link to a particular exam's conflict registration request form, see:

- [Information for Midterm 1](#), conflict request deadline, Tuesday, February 6, 6:59pm
- [Information for Midterm 2](#), conflict request deadline, Tuesday, March 6, 6:59pm
- [Information for Midterm 3](#), conflict request deadline, Tuesday, April 10, 6:59pm

or

- [Information for Final Exam](#), conflict request deadline, Friday, April 27, 6:59pm

After completing a conflict registration request form, if you are unable to attend the conflict exam time as well, course staff will be in contact with you via your "@illinois.edu" email account. Failure to respond promptly and appropriately to this email will result in you receiving a zero on that exam.
Once you have registered for a particular conflict exam, you are required to take that conflict exam. Failure to do so will be considered an unexcused missed exam (see below).

**Missed Exams**

There will be no make-up exams. Rather, in the event of a valid illness, accident, or family crisis, you can be excused from an exam so that it does not count toward your overall average. Such situations must be documented by an absence letter from the Student Assistance Center located in Room 300 of the Turner Student Services Building, or from a physician. Professors reserve final judgment as to whether an exam will be excused, and are the only people who may excuse you from an examination. Unexcused missed midterm examinations will be recorded as zeros. A missed final examination will be handled as dictated in the UIUC Examination Policy. All requests for an exam to be excused must be made within one week of the exam date by contacting your professor.

**Webassign online homework**

Homework will generally be due on Wednesdays, before 11:00pm. The homework will be completed online via WebAssign. Late homework will not be accepted, and no extensions will be granted. The first set of homework assignments (Homework #1 and Homework #2) will be due on Friday, January 26, at 11pm. You may refer to our schedule of homework assignments.

To access WebAssign, login using your University of Illinois NETID and password at webassign.net/uiuc/login.html You may need to wait 24-48 hours after registering for this course to be able to login to webassign. For problems check out webassign student support, or ask your fellow students via Piazza. We have arranged for you to have free access to the webassign online homework system for the first two weeks of classes (free access will end at 11:59 pm, Sunday, January 28). Before that time you must have purchased a webassign online homework access code, the very same code you purchased when buying your textbook (information on obtaining the textbook and webassign).

You may work on these homework assignments alone, or in small groups. The way webassign homework problems are scored is explained in the description section of the homework assignments on webassign.

**Worksheets and Quizzes**

- **Worksheets**
  - In the small discussion sections, you will frequently work in groups on worksheets, which will be collected at the end of the section and graded.
  - It is essential to work well with your group-mates: your section TA will grade one worksheet chosen at random from each group, and every member of the group will receive that grade.
  - You must arrive on time in order to not lose points from your worksheet.
  - Worksheets and their solutions will be posted here at the end of each week.
  - To view the schedule and topics for the worksheets, see here.

- **Quizzes**
  - These will be completed individually and will be given during discussion section.
  - Quizzes and their solutions will not be posted.
  - To view the schedule and topics for the quizzes, see here.

**Dropped scores**

Your lowest two worksheet scores, and your lowest quiz score will be dropped. We will not drop any webassign online homework scores. However, any student that attempts at least 75% of the webassign homework assignments will receive a 40 point bonus added to their webassign homework total.

**Missing Online Homework/Worksheets/Quizzes**

In this course we will not accept late work, grant extensions, or give any make-up work. If a student has a valid reason (enrolled late in the course, illness or accident from a physician, sporting event with a letter from an athletics department representative, religious obligation with letter from a religious leader) for a short-term (3 or fewer days) absence they may be “excused” by their TA from an online homework assignment, a worksheet or a quiz. Absences of longer duration must be documented by an absence letter from the Student Assistance Center located in Room 300 of the Turner Student Services Building, or from a physician. The student must email a copy of the appropriate documentation, along with a complete list of the work that they would like to be excused from to their small discussion section instructor (their TA), no later than one week after any assignment you are requesting to be excused from. You can look up their email here. Your professor reserves final judgment in dealing with such matters.

**Grading Policy**

Your final course total will be computed as follows. Information about grade distributions will be provided on the course wiki after each midterm exam.

- Online webassign homework: 8%
Worksheets: 4%
Quizzes: 3%
Midterms Exams: 18% each
Final: 31%
TOTAL: 100%

- If your final course percentage grade is greater than 90% then your final grade will be some sort of "A".
- It is possible that the cut off for some sort of "A" will be lower than 90%. In other words, if your final course percentage grade is 88.6% then it is possible, but not guaranteed, that your final grade could be some sort of "A".

- Your work on the homework and worksheets is crucial to your success in the course.

The departmental historical grade distribution for MATH 241 is:
- 23% of people earn "some sort of an A"
- 35% of people earn "some sort of a B"
- 28% of people earn "some sort of a C"
- 9% of people earn "some sort of a D"
- 5% of people earn an F

Viewing your grades online

To view your scores on worksheets, quizzes, and exams, use your University of Illinois NetID and password to login to learn.illinois.edu To view your scores on your webassign online homework, login to webassign.net/uic/login.html You may need to wait 24-48 hours after registering for the course to be able to log in to learn.illinois.edu

Note: webassign homework scores will not be transferred to learn.illinois.edu until after the final exam. Additionally, students' "final percentage grade" will not be calculated for them on learn.illinois.edu until the end of the course. Students must calculate/estimate this themselves during the semester. If you need help with this calculation, attend Tutoring Hours. It is the responsibility of the student to check that their grades are recorded correctly at learn.illinois.edu If an incorrectly recorded grade is discovered, you must notify your discussion section instructor (your TA) and show them the original document that was incorrectly recorded within one week of it being returned in discussion section.

Add/Drop Information

Any request for approval to add the course must be done through either emailing the Math Undergraduate Office at mathadvising@illinois.edu, or by stopping in to speak with an advisor in their office at 313 Altgeld Hall, weekdays between 8:30-noon or 1-5pm. Advisors in that office are the sole evaluators of merits of add requests.

Once added, you must email your TA immediately and ask them to excuse you from the work you have missed.

The last day to drop a semester-long course without a grade of "W" this Fall semester is Friday, March 9, as can be seen in the Spring Academic Calendar available here, via the Office of the Registrar. Please note that this is after the first midterm, and before the second.

Calculator policy

No calculators are allowed for exams or quizzes.

Students with Disabilities

Students with disabilities who require reasonable accommodations should see their professor as soon as possible. In particular, any accommodation on exams must be requested at least a week in advance and will require that you share your accommodation letter from DRES (Disability Resources & Educational Services) with your professor. Students must schedule any exam for which they require accommodation directly with the DRES facility.

To schedule an examination at the DRES facility, remember that all midterm examinations must be scheduled at least one week in advance, and the final examination must be scheduled at least one month in advance. DRES exams not scheduled prior to these deadlines will be rejected and the student will be required to take the exam at the normally assigned time/date/location/duration.

Midterm examinations for this class must be scheduled to be taken at any time during the same day as the normal midterm, or may have a start time of as late as 10:00am on the following day. The final examination must be scheduled to be taken at any time during the same day as the normal final exam, or at any time the business day prior to the normal final exam.

Once you have scheduled a date/time to take an exam at the DRES facility, you are responsible for taking the exam there and then. Failure to do so will result in that exam counting as a missed exam (see above).

Students needing accommodation during discussion section will need to share their accommodation letter from DRES with their TA, and email their TA explicitly stating which accommodation(s) they would like to receive.
Midterm regrade requests

Midterm examinations will be returned. To request a regrade of a particular problem, you must submit a regrade request. These will be due in the discussion section following the one in which midterm exams are returned, regardless of when you received your exam. To submit a regrade request, you will submit your entire midterm exam to your TA, along with a handwritten note explaining the issue. After checking the exam integrity, the TA will compare your solution to the grading rubric, and in the event of a discrepancy, they will pass your exam on to the TA responsible for having graded that problem. Regrades may decrease or increase your score.

Large lecture Etiquette

Since there are more than 200 people in the room, it’s particularly important to arrive on time, turn off your cell phone, refrain from chatter, not pack up your stuff until the bell has rung, et cetera. Otherwise it will quickly become hard for the other students to pay attention.

This course has more than 1000 students, between the four large lectures. To ensure the semester runs smoothly, it is paramount that everyone knows and follows the course policies.

In case of emergency, please be aware of Run > Hide > Fight and know where the exits are for your lecture hall building and discussion section building (you can look them up here).

No Recording

No recording, as defined by audio, still photo, or video, whether by audio, digital, or future recording devices, is permitted during any part of this course.

Academic integrity

- Violations of academic integrity (for example, cheating on exams) will be taken extremely seriously, and will be handled under the procedures of Article I, Part 4 of the student code.
- Please note that some of the penalties outlined in the Student Code are quite unpleasant. A standard penalty for cheating on an exam is a score of zero on the exam and a permanent letter in the student's college file.
- Looking at another student's exam or quiz counts as cheating, whether or not you gain any benefit.