18.03 Differential Equations, Spring 2018

Website: [https://learning-modules.mit.edu/class/index.html?uuid=/course/18/sp18/18.03](https://learning-modules.mit.edu/class/index.html?uuid=/course/18/sp18/18.03)


Office hours: Times and locations are posted in this Google Calendar. Any 18.03 student is welcome at any 18.03 instructor’s office hours. Highly recommended!

Email: poonen@math (add .mit.edu if off-campus). If you have a math question about some concept, or a question about the homework, or if you think you found an error in the book, notes, homework, or solutions, or if you have a general logistical question, then please try posting it on Piazza and it should get answered quickly. Also, math is easier to explain in person, so for involved math questions, coming to office hours is best of all! If you do need to email me for some other reason, please include

- your full name,
- your recitation number (e.g., R09), and
- your recitation leader’s name.

Lectures: MWF 1–2, in 26-100. I recommend that you keep electronic devices off and avoid having conversations during lectures, to avoid distracting other students around you (see the research mentioned in this article!). Detailed lecture notes will be posted after each lecture, so there is no need to take notes.

Recitations: On T and Th, starting Feb. 6 (before the first lecture). Attend the recitation you are enrolled in. To add or change recitation, use Stellar to choose one that is not full; in case of problems, contact Theresa Cummings, 617-253-4977 in Mathematics Academic Services 2-110.

Prerequisite: None, but 18.02 (multivariable calculus) is a corequisite, which means that you should be taking 18.02 concurrently if you have not already taken 18.02.

Required text: None. The references for the class will be the MITx online text and the lecture notes posted online. The MITx text and the lecture notes will be similar (because much of the MITx text was developed from my own Spring 2014 lecture notes), but the MITx text includes more worked examples and self-tests than there is time for during lectures.

Exams: There will be three 50-minute midterms during the usual class time on Monday February 26, Monday March 19, and Monday April 23 in 26-100 and 50-340 (upstairs in Walker Memorial); you will be told which location to go to. The final exam will be on Thursday May 24, 1:30-4:30pm, in Johnson Track (upstairs in Building W35). Notes, books, and electronic devices are not permitted during exams.

You can be excused from a midterm only with a medical excuse or prior arrangement (at least 24 hours prior). There will be no make-up midterms; for those excused, the other exam grades will be averaged.
Homework:

1. Reading assignments on MITx are best completed before the topic is discussed in lecture.
2. Short-answer problems are to be completed online at the [MITx website] by 12:55 P.M. on the due date (Eastern Time, of course). These are automatically graded, and will give you immediate feedback. For some problems (such as multiple choice problems), there is a limit to the number of attempts. If you ever have problems with the MITx website, contact MITx Program Manager Jennifer French at jfrench@mit.edu.
3. Other problems are posted online, but your solutions to them should be written on paper and placed in the box for your section outside 4-174 before 12:55 P.M. on the due date. Late homework will not be accepted. At the top of each problem set handed in should appear
   a. your name,
   b. your recitation leader’s last name,
   c. your recitation time (e.g., 11am),
   d. either the text “Sources consulted: none” or a list of all sources consulted other than the MITx text and lecture notes. **This is required.** (Examples of things that should be listed if consulted: a classmate, a tutor, a friend, a website, a textbook, solutions from a previous semester, etc.)
   e. a staple!

You should not expect to be able to solve every single problem on your own; instead you are encouraged to discuss questions with each other or to come to office hours, so that when you submit an assignment you are pretty sure that it is complete and correct. If you meet with a study group, you will learn best if you do as many problems as you can on your own before meeting. **Write-ups must be done independently.** (In practice, this means that it is OK for other people to explain their solutions to you, but you must not be looking at other people’s solutions as you write your own.)

Use examples in the MITx text and lecture notes as a model for the level of detail expected. Write in complete sentences whenever reasonable.

If you have questions about the homework, it is best to ask these in office hours. For quick questions, you might also try [Piazza].

There will be 9 homework assignments in all, due on the following dates: Wed Feb 14, Wed Feb 21, Wed Mar 7, Wed Mar 14, Wed Apr 4, Wed Apr 11, Fri Apr 20, Wed May 2, Fri May 11. (No homework is due in a week in which there is a midterm.)

**Grading:** The weighting is: homework 4, midterms 6, final 5. Each homework grade below your midterm-final average will be boosted up to that average, except as noted in the [detailed grading policy].

**MIT help resources:** Your friendly lecturer, your friendly recitation leader, the Math Learning Center, Mathematics Academic Services 2-110, the MIT Division of Student Life, and the Talented Scholars Resource Room.

If a personal or medical issue is interfering with your studies:
- Contact your medical provider if you need medical attention.
- Please do not come to class if you are potentially contagious. Instead keep up with the assigned readings if you can, and read the lecture notes posted after each lecture.
Email me and your recitation leader.

If it is an extended illness or serious personal problem, one that will cause you to miss completing an assignment or that will cause you to miss an exam, then please discuss this with Student Support Services (S3). You may consult with S3 in 5-104 or call 617-253-4861. The deans in S3 will verify your situation, and then discuss with you how to address the missed work. Students will not be excused from coursework without verification from S3.

If you have some other kind of conflict (e.g., varsity sports game), email only me and your recitation leader (not a dean) as far in advance as possible, and I will make a decision on how to proceed.

**If you need disability accommodations:** Please speak with Kathleen Monagle, Associate Dean in Student Disability Services (SDS) in 5-104 or call 617-253-1674, ideally before the semester begins. If you have a disability but do not plan to use accommodations, it is still recommended that you meet with SDS staff to familiarize yourself with the services and resources of the office. If you have already been approved for accommodations, please bring the accommodation letter to Theresa Cummings, 617-253-4977 in Mathematics Academic Services 2-110 early in the semester.

**Other important things:**

- It is your responsibility to email me and your recitation leader as far in advance as possible in case of an unavoidable conflict with an exam, in case of an extended absence, or in case you find yourself struggling with the course for any reason.
- If you have emergency medical information you wish to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately: feel free to talk to me privately after class or in my office.