

18.03 Differential Equations course information, Spring 2020
Revised March 31, 2020 due to COVID-19

Lecture hours:	MWF 1–2
Website:	http://math.mit.edu/~dyatlov/18.03/ This is the master website, see it for links to other sites used
Office hours:	see the course website
Textbook:	lecture notes (on the course website)
Grading:	HW= 50%, MT1=50% or HW=100%, whichever is higher
Midterm 1:	Friday February 28, 1:05–1:55 in 26-100 and 50-340
Midterm 2:	cancelled
Midterm 3:	cancelled
Final exam:	cancelled
Lecturer:	Semyon Dyatlov (dyatlov@mit.edu)
Course Admin:	Xuwen Zhu (xwzhu@mit.edu)
TAs:	see the course website Please email your TA for most questions about the course Email the lecturer/CA in situations that cannot be resolved otherwise
MAS staff:	Theresa Cummings (tcumming@mit.edu), 2-110 Please contact for recitation changes and special arrangements (e.g. SDS)
MITx Admin:	Jennifer French (jfrench@mit.edu) Please contact for access to and questions about the MITx website

Read all of the below information carefully!

18.03 is an introductory course on Ordinary Differential Equations (ODE) and Partial Differential Equations (PDE). The main emphasis is on finding formulas for solutions to these equations, but we will also learn a bit about modeling applications of ODE/PDE, numerical methods, and quantitative analysis of solutions. The course also covers complex numbers and linear algebra, to the extent that they are used in solving ODE/PDE.

The only required reading material are the lecture notes, posted on the course website. Students are also welcome to read the notes on the MITx website; these are completely optional and not always 100% correlated with lectures.

This is a very fast-paced course which covers a lot of different and intertwined topics, and it is very easy to fall behind. It is strongly recommended to read all the lecture notes when they are posted and start working on the problemsets as early as possible. If you feel that you are having difficulty with some of the material, please reach out to your TA! You are also encouraged to come to Math Learning Center tutoring (linked from course website).

Exams: Closed book: no books, notes, or electronic devices are permitted. In principle, exams are based on all material discussed (so far) in lectures, problem sets, and lecture notes. There are three 50-minute midterms during the usual class time either in 26-100 or 50-340 (top floor of Walker Memorial); you will be told which room to go to. *Lowest midterm score will be dropped.* Students must take all exams at the scheduled times. *There will be no makeup exams.*

Homework: consists of Part A and Part B. Both parts are due on Fridays at 12:55 PM except HW 10 which is due on the last day of class, May 12. Solutions will be posted shortly after due time. Lowest homework score will be dropped separately for Part A and Part B. *Late homework will not be accepted.* There are 10 problemsets which count for the grade, numbered HW1–HW10. There is also the problemset HW0, which does not count for the grade, but you are encouraged to complete this (very short) assignment to familiarize yourselves with the submission systems. See the calendar on the course website for the due dates. Part A counts for 20% of the homework grade, Part B counts for 80%.

- Part A is submitted at the MITx website, it is automatically graded and will give you immediate feedback. For some problems (such as multiple choice problems), there is a limit on the number of attempts.
- Part B is posted under Assignments on the Learning Modules/Stellar website (linked from the course website) and submitted in PDF format (scanned or typed) on the Gradescope website. Please write clearly and in complete sentences wherever reasonable. *On top of the first page of your Part B homework, please write your name and the list of all sources and collaborators consulted in either Part A and Part B (see below).*
- You are encouraged to collaborate with other students in this class, but *you must write your solutions in your own words.* Do not look at solutions of others while writing your own. You are required to list and identify clearly all sources and collaborators. (“Wikipedia” is too vague.) On the other hand, you do not need to list as sources instructors, lecture notes, or our MITx materials. Do list classmates, tutors (including in the Math Learning Center) and any other source, animate or inanimate.

Help resources and special accommodations:

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 Tutorial Services 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 read the lecture notes posted after each lecture.
- Email your TA. You are welcome to contact your TA and/or lecturer in case you find yourself struggling with the course for any reason.
- If it is an extended illness or serious personal problem, one that will cause you to miss submitting a homework or that will cause you to miss an exam, then (and only 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.

- For disability accommodations, please speak to Student Disability Services (SDS) in 5-104, email uaap-sds@mit.edu, or call (617) 253-1674, ideally before the semester begins. As early as possible in the semester, please take the SDS accommodation letter to Theresa Cummings in Mathematics Academic Services 2-110. 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.
- For religious accommodations, please contact Theresa Cummings. *Please review the class calendar and notify Theresa as soon as possible of any conflicts.*
- If you have some other kind of conflict (e.g. varsity sports game), email your TA and the lecturer as far in advance as possible, and we will make a decision on how to proceed.
- Scheduling conflicts are not a basis for special accommodations.