## Math 15300: Calculus III

Winter 2021, Sections 39, 29

**Instructor** Benedict Morrissey

Email bmor@uchicago.edu (This is preferred form of contact.

Please use or cc your uchicago email address)

Course Website TBA

Timetabled Sessions Section 29 Monday, Wednesday, Friday 9:10AM-10:00AM [Chicago time] on Zoom.

(After First week Monday will become asynchronous)

Synchronous Sessions Section 39 Monday, Wednesday, Friday 10:20AM-11:10AM

(After First week Monday will become asynchronous)

Office Hours TBA

Course Overview: Sequences and series, vectors, Multivariable functions, their derivatives and their integrals.

## Method of Delivery:

Mix of recorded lectures (asynchronous), and synchronous sections in which I aim to have more active participation. Zoom links will be on Canvas.

In the first week all sessions will be synchronous. I expect to transition the Monday session to an asynchronous lecture. I may also move the Friday lecture to

There will be a problems session - to be scheduled.

Office Hours also remain to be scheduled.

There will be a discussion forum, to discuss content. I will answer questions on the forum.

#### Recordings:

There are university wide Recording and Deletion Policies which can be found in the Student Manual under Petitions, Audio Video Recording on Campus. Namely do not "(i) record, share, or disseminate University of Chicago course sessions, videos, transcripts, audio, or chats; (ii) retain such materials after the end of the course; or (iii) use such materials for any purpose other than in connection with participation in the course." Furthmore do "not share links to University of Chicago course sessions with any persons not authorized to be in the course session. Sharing course materials with persons authorized to be in the relevant course is permitted."

The Zoom cloud recordings are automatically deleted 90 days after the recording.

#### Discussion Forum:

There will be a discussion forum using the "Ed Discussions" platform. Links will be available on Canvas.

Material: We will cover the following (Chapter references to textbook, we will not cover the entirety of each chapter):

- Sequences; Indeterminate Forms; Improper Integrals. (Chapter 11)
- Infinite Series. (Chapter 12)
- Vectors in Three Dimensional Space. (Chapter 13)

- Functions of Several Variables. (Chapter 15)
- Gradients; Extreme Values; Differentials. (Chapter 16)
- Double and Triple Integrals. (Chapter 17)

Text: Calculus: One and Several Variables, 10th edition, Salas-Hille-Etgen

It is fine to have a different edition of the text.

I also recommend the problems in:

Intuitive Infinitesimal Calculus, Victor Blåsjö. Available online at http://intellectualmathematics.com/dl/calculus.pdf.

#### Late Homework, Missed Class

If for whatever reason [e,g. Illness, Family emergency, ...] you will miss a significant amount of time, or miss some homework assignments please let me know as soon as is reasonably possible so that we can arrange how to deal with this.

Note: Instructors cannot excuse students from the official final exam, except in the case of students taking an Incomplete. That is to say if you are sick on the day of the final exam you must take an incomplete. If you know far in advance that you can not attend final exam, something may be able to be arranged – contact me.

For individual missed class sessions, watch the recorded video, and come to office hours if you want to discuss it.

Late Homework will not be accepted for full credit in the absence of an acceptable reason. For technical difficulties resulting in Homework being a few hours late you can email me to state this (or leave a note on the Homework submission). For longer delays/other reasons I should be contacted as far in advance as is reasonably possible.

Late Homework will always be accepted for 50% credit up to March 13th (after which I may not be able to grade it in time).

#### **Grade Components:**

There will be homework, two tests, and an exam.

- Homework 20%.
- Tests 25% each.
- Exam 30 %.

# Details:

- There will be weekly homework. This may be in part online on Gradarius. The two lowest homework grades will be dropped.
- For midterms, and exams a test will be released, and photos/scans of completed test must be uploaded within a time limit. Some of the midterms may be in the "take home test" style of having a significantly longer time limit than an in class exam would.

Collaboration, Homework Policy, and Academic Integrity: Working together on Homework questions (With the exception of the take home test questions) is encouraged. You are also encouraged to discuss these problems in office hours. However I require that:

- You write up solutions individually, and do not look at other students fully written solutions prior to submitting homework.
- Cite any sources used on the Homework and include a list of people you discussed the problems with.
- Do not post problems online.

On tests and exams you must not communicate about the questions with anyone else. There will also be a set policy about what resources are allowed to be used for each test/exam.

Getting Help: I would like to encourage everyone to come to office hours when you have questions about course material.

If you have concerns about falling behind, or otherwise, please email me. Your academic advisor is another good person to discuss this with if relevant.

College Core Tutoring Program: There is a university of Chicago drop in tutor program, see https://college.uchicago.edu/academics/college-core-tutor-program.

**Disabilities**: If you require special accommodation you should contact UChicago Student Disabilities Services (SDS) as soon as possible. For more information, see https://disabilities.uchicago.edu/. Please also contact me to say that you are doing this.

### **Important Dates:**

- Test 1: 1st February (either in Class or take home [e.g. over a longer time period])
- Test 2: 19th February (either in Class or take home)
- Final Exam At the time scheduled in College Final Schedule However this has not yet been scheduled.
- Add/Drop Deadline Week 3. Email mathadvising@math.uchicago.edu for departmental approval of course change requests, with the exception of requests for simultaneous enrolment.

  If you want to discuss this please email me.
- The end of Week 9 is the deadline for P/F grading.