

Welcome to the Math 120 Town Hall

Fall 2022

We'll start soon. Feel free to type questions into the chat.

Plan

What is Math 120?

Am I ready for Math 120?

Structure of the course

Tips for Success

Q&A

What is Math 120?

Exploring and developing the tools developed in single variable differential and integral calculus in higher dimensions.

Single variable input, multivariable output:
vector valued functions, motion through space as a function of time

Multivariable input, single variable output:
multivariable functions, $f(x, y) = x + y$,
surfaces, temperature as a function of position

Multivariable input and output: vector fields,
wind velocity as a function of position, force fields

Am I ready for Math 120?

Placement is through exam or by passing Math 115 or Math 116.

Specific placement concerns should go to online placement advising

Schedule and Zoom links are on the math department's first year resources page.

Note that you must take the placement exam before going to advising. If you haven't taken the exam, ~~email meghan.anderson@yale.edu~~ and I can reopen it for you. it will be reopened Aug 20-30.

Important concepts from BC Calc

Knowledge and understanding of basic functions and their graphs.

Differentiation techniques and applications

Riemann sum definition of the integral (slice, approximate, sum, take a limit)

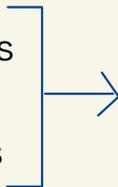
Integration techniques

Area between curves

Volumes of revolution

Parametric curves

Polar coordinates



A short review of these topics will be offered early in the semester.

Not used (but may be important later):

Formal definition of a limit, sequences and series

What are my other options?

ENAS 151 - *Same topics, large lecture setting, engineering focused, taught by engineers*

Math 121 (Spring only) - *Same topics, focus on modeling in the life sciences*

→ Both equivalent to Math 120.

Math 225 - *Linear algebra, take if considering a math major or significant math coursework, will see multivariable later.*

Math 118 is not recommended in your first semester as it is a terminal course

→ Different courses available with 120 placement

If you placed into Math 120, you do not need permission to take Math 115 or 116.

Math 116 is a 115 level class with a biology slant. This is a particularly great option if you are considering pre med and have taken BC Calc but don't feel ready for 120, because it gives an opportunity to revisit the BC material without repeating the exact same course.

Structure of the course

Taught in small sections with common homework and exams

Preclass reading, videos, and quizzes

Weekly problem sets

Two midterms and a cumulative final

Grading: 5% Quizzes, 10% Homework, 85% Exams

Improvement is rewarded!

Quick poll:

What are you most nervous about in Math 120?

- a) Keeping up with the **pace** of the course
- b) Doing more **independent work**
- c) Being intimidated by **peers**
- d) Taking high stakes **exams**
- e) Other

Resources:

Ximera

Instructor office hours

Peer tutor office hours

Optional videos

Tips for Success

Stay on top of the material and manage your time (make a plan!)

Study to understand, not to memorize

Form study groups, but make sure you can do the work yourself

Never hesitate to ask for help!!!

Q&A

You can reach me at meghan.anderson@yale.edu

Advising sessions, Zoom links on math
department “first years resources” page:

Wednesday, 7:20 - 9 pm

Thursday, 9:20 - 11 am and 3:20 - 5 pm