

Lectures, office hours, and Zoom

The MATH 120 lectures will be from 10:00–10:50am (Pacific time) on Mondays, Tuesdays, Wednesdays, and Fridays this semester.

Our lectures will be held on [Zoom \(https://canvas.ubc.ca/courses/55231/external_tools/15408\)](https://canvas.ubc.ca/courses/55231/external_tools/15408). The easiest way to access the live lectures is through the Zoom link on the menu to the left. (If you need this information, the meeting ID is 690 6201 7646 and the passcode is 663020. Please don't give this information to people outside the course.)

I know that not all of you will be able to attend these lectures live. I will post the video recording of every lecture, as well as the PDF/written notes that I use in the lectures. *[I'll add a link here to those recordings and notes once I get that set up.]*

For those attending the lectures live:

- My recommendation is to use [side-by-side mode \(https://support.zoom.us/hc/en-us/articles/115004802843-Side-by-side-Mode-for-screen-sharing\)](https://support.zoom.us/hc/en-us/articles/115004802843-Side-by-side-Mode-for-screen-sharing) in Zoom, so that you can see my face (and the TA as well) at the same time as the notes on the screen I'm sharing. (You can look at the [Zoom guide \(https://keep-teaching.ubc.ca/files/2020/04/zoom-student-guide.pdf\)](https://keep-teaching.ubc.ca/files/2020/04/zoom-student-guide.pdf) for general information about using Zoom.)
- I ask that you make sure you can use the response buttons within Zoom (yes/no, thumbs up/down, faster/slower), as that will be an important way for me to get feedback from the live audience during class.

At the moment I plan on keeping the Zoom meetings open after class for a little bit for students to ask questions.

Office hours will also be held via Zoom. I have not yet scheduled office hours. *[I will update this page when I do.]* To help me schedule times that will allow all students to attend at least some of the office hours, please [set your time zone \(https://canvas.ubc.ca/courses/55231/discussion_topics/632654\)](https://canvas.ubc.ca/courses/55231/discussion_topics/632654) within Canvas.

There are [several other ways to get mathematical assistance \(https://canvas.ubc.ca/courses/55231/pages/resources-for-math?module_item_id=2245571\)](https://canvas.ubc.ca/courses/55231/pages/resources-for-math?module_item_id=2245571) besides my office hours, including [Piazza \(https://piazza.com/class/keejoqfkfba3h4\)](https://piazza.com/class/keejoqfkfba3h4) and the [Math Learning Centre \(http://www.math.ubc.ca/~MLC/\)](http://www.math.ubc.ca/~MLC/).

Course textbook and lecture notes

The primary textbook for MATH 120 is [CLP-1 Differential Calculus](https://www.math.ubc.ca/~CLP/CLP1/) (<http://www.math.ubc.ca/~CLP/CLP1/>). At the link you will find both a [textbook](https://www.math.ubc.ca/~CLP/CLP1/clp_1_dc_text.pdf) (https://www.math.ubc.ca/~CLP/CLP1/clp_1_dc_text.pdf) and a [practice problem book](https://www.math.ubc.ca/~CLP/CLP1/clp_1_dc_problems.pdf) (https://www.math.ubc.ca/~CLP/CLP1/clp_1_dc_problems.pdf). The two can be [downloaded as a single PDF file](https://www.math.ubc.ca/~CLP/CLP1/combined_clp_1.pdf) (https://www.math.ubc.ca/~CLP/CLP1/combined_clp_1.pdf) or [viewed online](https://www.math.ubc.ca/~CLP/CLP1/clp_1_dc/index.html) (https://www.math.ubc.ca/~CLP/CLP1/clp_1_dc/index.html) (browser or mobile). You will not have to purchase any materials for this course!

The CLP textbook is required for this course, and we will be following it pretty closely. Here is a list of several other calculus textbooks, if you would like different authors' perspectives on the subject or additional sources of explanations and problems.

- [Calculus](https://archive.org/details/CalculusTomMApostol) (<https://archive.org/details/CalculusTomMApostol>) by Apostol
- [Calculus](https://archive.org/details/Calculus_643) (https://archive.org/details/Calculus_643) by Spivak
- Calculus: A Complete Course by Adams and Essex (I didn't find an online version available)
- [Calculus for Cranks](http://www.math.caltech.edu/~nets/cranks.pdf) (<http://www.math.caltech.edu/~nets/cranks.pdf>) by Katz
- [mooculus](https://mooculus.osu.edu/handouts) (<https://mooculus.osu.edu/handouts>) by Fowler and Snapp
- [APEX Calculus](http://www.apexcalculus.com) (<http://www.apexcalculus.com>) by Hartman et al.
- [Active Calculus](https://activecalculus.org/ACS.html) (<https://activecalculus.org/ACS.html>) by Boelkins, Austin, and Schlicker

If I ever use material from any of these books in class, I will post specifically about that fact and make sure the material is available to you. Otherwise, just treat this list as a resource for you if you want.

[I will post a link to the lecture recordings and notes when I get that page set up.]

Grading scheme

The grading scheme for MATH 120 is:

- **WeBWork assignments** (<https://canvas.ubc.ca/courses/55231/pages/webwork-assignments>) (roughly every week) for 10% of your grade
- **Homework assignments** (<https://canvas.ubc.ca/courses/55231/pages/homework-assignments>) (every two weeks) for 30% of your grade
- **Two midterms** (<https://canvas.ubc.ca/courses/55231/pages/midterms-and-final-exam>) (on Wednesday, October 14 and Tuesday, November 10), each for 20% of your grade
- A **final exam** (<https://canvas.ubc.ca/courses/55231/pages/midterms-and-final-exam>) (date not yet determined), for 20% of your grade

In a large class, where solutions to assignments are posted quickly after submission deadlines, our approach to [late or missed work](https://canvas.ubc.ca/courses/55231/pages/late-or-missed-work?module_item_id=2245345) (https://canvas.ubc.ca/courses/55231/pages/late-or-missed-work?module_item_id=2245345) has to be very structured to be fair to everyone. Please make sure you know the course policies so that you don't make mistakes in scheduling your work.

WeBWork assignments

[WeBWork assignments \(https://canvas.ubc.ca/courses/55231/assignments/596904\)](https://canvas.ubc.ca/courses/55231/assignments/596904) will be due every week (except for the weeks following the midterms). You must complete the WeBWork assignments by 9:50am on each of the following days:

- WeBWork #0: Monday, September 14
- WeBWork #1: Monday, September 21
- WeBWork #2: Monday, September 28
- WeBWork #3: Monday, October 5
- WeBWork #4: Tuesday, October 13 (*because Monday, October 12 is the Thanksgiving holiday*)
- (*no WeBWork due on Monday, October 19*)
- WeBWork #5: Monday, October 26
- WeBWork #6: Monday, November 2
- WeBWork #7: Monday, November 9
- (*no WeBWork due on Monday, November 16*)
- WeBWork #8: Monday, November 23
- WeBWork #9: Monday, November 30

WeBWork is an online homework system that is used in many UBC courses. The initial assignment, WeBWork #0, will provide you with practice on how to access the assignments and how to enter mathematical answers in the system in a way it will recognize. (Even though there's almost no mathematical content in WeBWork #0, it will count equally with the other WeBWork assignments in your WeBWork average.)

In [our grading scheme \(https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343\)](https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343), your WeBWork average will count for 10% of your overall grade in MATH 120. The lowest of your ten WeBWork assignment scores will be dropped, and the other nine scores will be averaged together.

There is a 15% late penalty for WeBWorks submitted after the due date and time. (Please take the submission time of 9:50am seriously, and plan to finish well before then—preferably the night before, really.) Solutions to the WeBWork assignments will be available 24 hours after the due date and time, and no late work will be accepted once those 24 hours pass.

The WeBWork system has many advantages, including slightly randomizing homework problems

Homework assignments

Homework assignments *[I will add a link here once I create the module]* will be due every two weeks. You must complete the homework assignments by 9:50am on each of the following days:

- Homework #0: Friday, September 18
- Homework #1: Friday, September 25
- Homework #2: Friday, October 9
- Homework #3: Friday, October 23
- Homework #4: Friday, November 6
- Homework #5: Friday, November 20
- Homework #6: Wednesday, December 2

Homework solutions must be typed. You can use whatever system you want that produces easy-to-read mathematical output; my recommendation is [LaTeX](https://en.wikipedia.org/wiki/LaTeX) ([_https://en.wikipedia.org/wiki/LaTeX_](https://en.wikipedia.org/wiki/LaTeX)), the system used by the majority of the world's scientists to produce technical documents. I will provide LaTeX templates *{I will include the link to the homework assignments here as well}* for every homework assignment to make it easy for you to start your solutions.

There are websites, such as [Overleaf](https://www.overleaf.com/) ([_https://www.overleaf.com/_](https://www.overleaf.com/)), that provide free platforms for using LaTeX. There is an [introduction to what LaTeX is](https://www.latex-project.org/about/) ([_https://www.latex-project.org/about/_](https://www.latex-project.org/about/)) at the LaTeX Project website, as well as instructions on how to download your own [free LaTeX software](https://www.latex-project.org/get/) ([_https://www.latex-project.org/get/_](https://www.latex-project.org/get/)) if you like. LaTeX tutorials can be found by searching the internet; the [ShareLaTeX YouTube channel](https://www.youtube.com/user/ShareLaTeX/featured) ([_https://www.youtube.com/user/ShareLaTeX/featured_](https://www.youtube.com/user/ShareLaTeX/featured)) (ShareLaTeX merged with Overleaf) has tutorial videos.

The initial assignment, Homework #0, will provide you with practice on how to access and submit the assignments and how to use whatever system you've chosen to type them. (Even though there's almost no mathematical content in Homework #0, it will count equally with the other Homework assignments in your Homework average.)

In [our grading scheme](https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343) ([_https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343_](https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343)), your Homework average will count for 30% of your overall grade in MATH 120. The lowest of your seven Homework assignment scores will be dropped, and the other six scores will be averaged together.

There is a 15% late penalty for Homework submitted after the due date and time. (Please take the submission time of 9:50am seriously, and plan to finish well before then—preferably the night before, really.) Solutions to the Homework assignments will be available 24 hours after the due date and time, and no late work will be accepted once those 24 hours pass.

The Homework assignments are intended to give you practice writing free-form mathematics, as the problems are often more conceptual than straightforward calculations are. The assignments will provide additional insight into why our calculation techniques are true and how we can be sure they give the correct answers, as well as show how mathematicians think about mathematics beyond mere systems of calculation. These Homework assignments represent the main difference between this Honours course and the other first-year differential calculus courses.

Remember that the homework is intended to help you learn the course material, and therefore it should be done as you are studying; students who leave their homework to the night before it is due do poorly in this course. (Do not be tempted into finding ways to complete your WeBWork assignments without working through the problems yourself; in addition to the consequences of violating [UBC's academic misconduct policies](#)

[\(<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0>\)](http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0), you will be depriving yourself of

“ “ . . . “ “ \

6d You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

Midterms and final exam

MATH 120 has two midterms and a final exam; these three 50-minute exams will all be treated the same.

Midterm 1 will take place in class on Wednesday, October 14. *[I will update this page when I understand how students' time zones will impact the midterm scheduling.]* Midterm 1 covers the material on WeBWorks #1–#4 and Homeworks #1–#2.

Midterm 2 will take place in class on Tuesday, November 10. *[I will update this page when I understand how students' time zones will impact the midterm scheduling.]* Midterm 2 covers the material on WeBWorks #5–#7 and Homeworks #3–#4. (You'll need to still know and use the earlier material, but that earlier material won't be the focus of any of the questions.)

The final exam will take place on a date still to be determined. *[I will update this page when that information is decided.]* It will be like a third midterm, and in particular will be only 50 minutes long! The final exam covers the material on WeBWorks #8–#9 and Homeworks #5–#6. (You'll need to still know and use the earlier material, but that earlier material won't be the focus of any of the questions.)

In [our grading scheme \(https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343\)](https://canvas.ubc.ca/courses/55231/pages/grading-scheme?module_item_id=2245343), each of your three exam scores (Midterm 1, Midterm 2, and the final exam) will count as 20% of your overall course grade.

I will be looking into possibility of having an alternate time for each midterm and possibly for the final exam, based on student time zones.

Late or missed work

WeBWorK and Homework

For the [WeBWorK \(https://canvas.ubc.ca/courses/55231/pages/webwork-assignments\)](https://canvas.ubc.ca/courses/55231/pages/webwork-assignments) and [Homework \(https://canvas.ubc.ca/courses/55231/pages/homework-assignments?module_item_id=2245337\)](https://canvas.ubc.ca/courses/55231/pages/homework-assignments?module_item_id=2245337) assignments, please take the submission time of 9:50am seriously, and plan to submit your assignments well before then. The best strategy is to finish and submit these assignments the night before, to guard against any last-minute mathematical obstacles or technological barriers.

There is a 15% late penalty for WeBWorKs and Homeworks submitted after the due date and time. Solutions to the WeBWorK and Homework assignments will be available 24 hours after the due date and time, and no late work will be accepted once those 24 hours pass. (Remember, your lowest WeBWorK score and your lowest Homework score will both be dropped before your WeBWorK and Homework averages are computed; this is intended to give you further protection against one-time problems beyond your control.)

Midterm 1 and Midterm 2

If you know in advance that you have to miss a midterm time for any reason, please [tell me in advance \(https://canvas.ubc.ca/courses/55231/pages/communicating-with-the-instructor\)](https://canvas.ubc.ca/courses/55231/pages/communicating-with-the-instructor), and we will find an arrangement that works. For any unexpected circumstances (including illness) that result in you missing one of the midterms, [please tell me as soon as possible \(https://canvas.ubc.ca/courses/55231/pages/communicating-with-the-instructor\)](https://canvas.ubc.ca/courses/55231/pages/communicating-with-the-instructor) after the midterm. Make-up midterms are extremely unlikely, but we can alter the [grading scheme \(https://canvas.ubc.ca/courses/55231/pages/grading-scheme\)](https://canvas.ubc.ca/courses/55231/pages/grading-scheme) to move the weight of the missed midterm onto the other exams.

Final exam

The UBC calendar has detailed [regulations on illness, academic concessions, and deferred standing \(http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1462\)](http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1462). If you miss the final exam, you will need to present your situation to the [advising office for your faculty \(https://canvas.ubc.ca/courses/55231/pages/resources-for-your-academic-career?module_item_id=2255267\)](https://canvas.ubc.ca/courses/55231/pages/resources-for-your-academic-career?module_item_id=2255267) to be considered for deferred standing. You must do so within 48 hours of the missed final exam