# SYLLABUS

MTH 122 Survey of Calculus and Its Applications 2

Winter Session 2019

SUNY University at Buffalo
Mathematics Department

# WELCOME

## Overview

Welcome to MTH 122 Survey of Calculus and Its Applications 2. We begin by giving a brief overview of the course structure and will then expand on these descriptions later on in this syllabus. Make sure you carefully read through the entire syllabus and then contact your instructor immediately if you still have any questions.

Essentially, the course consists of five main components: the lectures, recitations, office hours, homework assignments, and exams.

## Lectures

Lectures are pre-recorded videos that can be watched at any time. Each video has an accompanying note sheet to be filled in as you watch each lecture. These note sheets are for your benefit and may be checked for completion if you participate in the recitations. To stay on pace with the course material, you are strongly encouraged to complete each lecture on (or before) the scheduled lecture date.

- See the Attendance Policy for further information.
- See the Lecture and Homework section to start watching!

## Office Hours

Office hours are conducted through an online discussion board. The discussion board is an opportunity to engage with the instructor, teaching assistant, and other students by asking and answering questions in a text based format.

## Recitations

Recitations are conducted as an online video conference, and are an opportunity to engage directly with the instructor by asking questions, working through homework problems together, and reviewing lecture

material - all in real time!

# Homework Assignments

The best way to learn mathematics is by practicing it for yourself. Homework will consist of both graded and ungraded problems. The graded homework sets for each lecture will be completed online using MyMathLab.

# Exams

There will be two paper-based midterm exams. These exams must be taken **in-person** at an instructor approved testing center. Please note the exams are not administered online but rather in a paper-based format. There will not be a cumulative final exam.

# INSTRUCTOR INFORMATION

Corey Placito

## Corey Placito

Instructor

SUNY University at Buffalo
Mathematics Department

**Office**: 106 Mathematics Building
**Office Hours**: Conducted online using the Discussion Board.
**Email**: coreypla@buffalo.edu

Contact

Michael Casper

## Michael Casper

Lecture-Narrator

SUNY University at Buffalo
Mathematics Department

**Office**: 222 Mathematics Building

# HOW TO SUCCEED

## Time Management

This is your full-time job for the next 3 weeks! The Winter Session compresses a 15 week course into 3 weeks. Time management skills are essential in successfully completing this course. On average, expect to spend approximately **60+ hours per week** on work for this class (lectures, assignments, studying, reading, etc.).

Please understand that a lot of responsibility will fall onto your shoulders to work through the material at the pace described in this syllabus. Any online course demands a large degree of dedication and autonomous study habits from the individual student. If you do feel like you are falling behind, **be proactive** and reach out to the Instructor or TA!

## Daily Workflow

For each assigned lecture complete the following:

1. Print the corresponding lecture notes.
2. Actively watch the lecture and complete the note sheet.
3. Read the indicated section of the textbook.
4. Complete the assigned ungraded homework problems from the textbook as needed.
5. Complete the graded homework problems on MyMathLab.
6. Participate in the recitation section and discussion board.

## Work Effectively

Turn off your phone. Turn off social media. Close all unnecessary browser windows on your computer. Do not study in front of the TV. You should be **actively watching** the lecture videos and studying. Active means:

- Mindfully following along with videos
- Taking handwritten notes

- Going back if something does not make sense
- Pausing to try an example for yourself, etc.

# Getting Help

You are strongly encouraged to ask questions and get help when needed. Do not fall behind! *Remember, if you have a question ... ask! Chances are good that someone else will also benefit from your question.*

We offer several different platforms for you to ask questions and get help:

1. Recitation (Online)
2. Office Hours (Online Discussion Board)

# COURSE REQUIREMENTS

## Prerequisites

1. MTH 121 with recommended grade of C or higher.

## Required Hardware

1. Textbook - L. Goldstein, D. Schneider, D. Lay, and N. Asmar, *Calculus and Its Applications*.
    - The 5th custom UB edition is the official version.
    - The 4th custom UB edition is also sufficient.
    - The standard 13th and 14th editions are also sufficient.
2. Computer with an up-to-date internet browser.
3. Internet Connectivity: consistent access to high speed internet for the duration of the course.

## Required Software

1. **This Course Website** – This is the main portal for our class. It contains the syllabus and all information regarding lectures and assignments.
2. **UBlearns** – Our course UBlearns page will be used as a place to post announcements, grades, and any other sensitive information while the course is in progress.
3. **Piazza** – The online discussion board for our class. (free)
4. **Zoom** – Video conferencing softward for the online recitations. (free)
5. **MyMathLab** –

## Recommended Software

1. Geogebra Very nice graphing software. (free)
2. WolframAlpha Website that provides nice computational and graphical services in a search engine format. (free)

3. Maple, Mathematica, or Matlab These are heavy duty computational programs (more than we really need) but some of them are free to download as a UB student.

# COURSE SCHEDULE

There are 4 types of dates on our class calendar: Lecture, Exam, Homework, and Administrative.

## Lecture Dates

On each scheduled lecture date (in addition to the assigned material) we will have:

- **Recitation** at 12-12:30pm (Eastern Time)

The lecture dates represent the recommended pacing of the course. You are strongly encouraged to have **all assigned material** completed by the end of that lecture day. This means watch the assigned lecture videos, take notes, read the corresponding section in the text, and complete all assigned homework. Don't forget that you can get started earlier in the week or even on the previous weekend! This way you will be able to take full advantage of that day's scheduled recitation if you have questions.

## Exam Dates

The following are all important dates regarding the exams for this course:

- **Exam Date 0:** Thursday, January 3, 2019 at 11:59pm ET - Final deadline for submitting the required Exam Registration Form.
- **Exam Date 1:** Friday, January 11, 2019 at 12pm-3pm ET - (it is a 3 hour exam)
- **Exam Date 2:** Wednesday, January 23, 2019 at 12pm-3pm ET - (it is a 3 hour exam)

## Homework Dates

The final deadline for **all graded homework** assignments is:

- **HW Date:** Friday, January 25, 2019 at 11:59pm ET

Even though all of the homework assignments are due this day for grading purposes, you should have each one completed by the end of its assigned lecture date. *You will not have success in this course if you fall behind on the homework.* The extra time you are given here should only be spent tidying up a few loose ends, not for completing entire assignments.

# Administrative Dates

A few other important dates to remember:

- **First Official Day of Classes** - Thursday, January 3, 2019
- **Last Day to Drop/Add** - Friday, January 4, 2019
- **Last Day to Resign** - Wednesday, January 16, 2019
- **MLK Jr Day** - Monday, January 21, 2019 - No Class
- **Last Day of Classes** - Wednesday, January 23, 2019
- **Final Grades Published** - Wednesday, January 30, 2019 by 11:59pm ET

# COURSE CALENDAR

## Week 1

| Date | Event Type | Description |
|---|---|---|
| Jan 3 (Thu) | Lecture Date 1 | Sections 7.1, 7.2 & Recitation |
| Jan 3 (Thu) | Exam Date 0 | Exam Reg Form Due at 11:59pm ET |
| Jan 4 (Fri) | Lecture Date 2 | Sections 7.3, 7.4 & Recitation |

## Week 2

| Date | Event Type | Description |
|---|---|---|
| Jan 7 (Mon) | Lecture Date 3 | Sections 7.5, 7.6 & Recitation |
| Jan 8 (Tue) | Lecture Date 4 | Sections 9.1, 9.2 & Recitation |
| Jan 9 (Wed) | Lecture Date 5 | Sections 9.3, 9.4 & Recitation |
| Jan 10 (Thu) | Lecture Date 6 | Sections 9.6a, 9.6b & Recitation |
| Jan 11 (Fri) | Exam Date 1 | Exam 1 (Lectures 1-6) |

## Week 3

| Date | Event Type | Description |
|---|---|---|
| Jan 14 (Mon) | Lecture Date 7 | Sections 10.1a, 10.1b, 10.2 & Recitation |
| Jan 15 (Tue) | Lecture Date 8 | Sections 10.5 & Recitation |

| Date | Event Type | Description |
| --- | --- | --- |
| Jan 16 (Wed) | Lecture Date 9 | Sections 10.7, 12.1a, 12.1b & Recitation |
| Jan 17 (Thu) | Lecture Date 10 | Sections 12.2a, 12.2b & Recitation |
| Jan 18 (Fri) | Lecture Date 11 | Sections 12.3, 12.4a & Recitation |

# Week 4

| Date | Event Type | Description |
| --- | --- | --- |
| Jan 21 (Mon) | MLK Jr Day | No lectures |
| Jan 22 (Tue) | Lecture Date 12 | Sections 12.4b & Recitation |
| Jan 23 (Wed) | Exam Date 2 | Exam 2 (Lectures 7-12) |
| Jan 25 (Fri) | HW Date | All HW is due by 11:59pm ET |

# RECITATION

## Overview

Recitations are conducted as an online video conference, and are an opportunity to engage directly with the instructor by asking questions, working through homework problems together, and reviewing lecture material - all in real time.

Recitations will be held at scheduled times, but will also be recorded and posted in the Recitation Archive for later viewing. We will be using the video conferencing software **Zoom** which requires a very quick download the first time you attend (and is free for you to use).

> **Note**
>
> Recitation is scheduled each **lecture date at 12-12:30pm**.

Join Recitation (Live)

Recitation Archive

## How To Attend

**Simply click the above "Join Recitation (Live)" button at the scheduled time**. Once the recitation starts it will be held in a Question & Answer format ... so come with questions!

- You can ask either verbally through your microphone or using the text-based chat feature.
- If you ask a question, be prepared to respond back to the instructor's questions. We usually try to ask questions of you to see where you are getting stuck and to see if you know where to go next.

It is strongly recommended that you attempt the assigned homework problems before that day's recitation.

# Recitation Archive

**Click on the above “Recitation Archive” button** to view the catalog of all recorded recitations for this session. Recorded recitations will be posted by the following day and depend on the attendance and participation at the live event.

# Some Relevant Course Policies

- Attendance Policy
- Recitation Policy

# OFFICE HOURS

## Overview

Office hours are conducted through an online discussion board. The discussion board is an opportunity to engage with the instructor, teaching assistant, and other students by asking and answering questions in a text based format.

We will be using the website **Piazza** for our course Discussion Board. It will require a very quick initial registration and is free to use.

> **Note**
>
> We encourage you to post your questions during **normal business hours (9-5pm ET)** as these are the times we will be most active. It is our goal to have all questions answered within 24 hours during the work week (but most likely much sooner).

Join the Discussion Board

## How To Participate

**To join our discussion board simply click the above button.** Once you have registered there are many ways to participate. You can ask questions, you can answer questions, you can just read through other discussions. It is up to you!

We do encourage you to also answer other people's questions; explaining a concept to someone is actually a really good way to learn and retain the information for yourself! (Although do not just simply give the answer!)

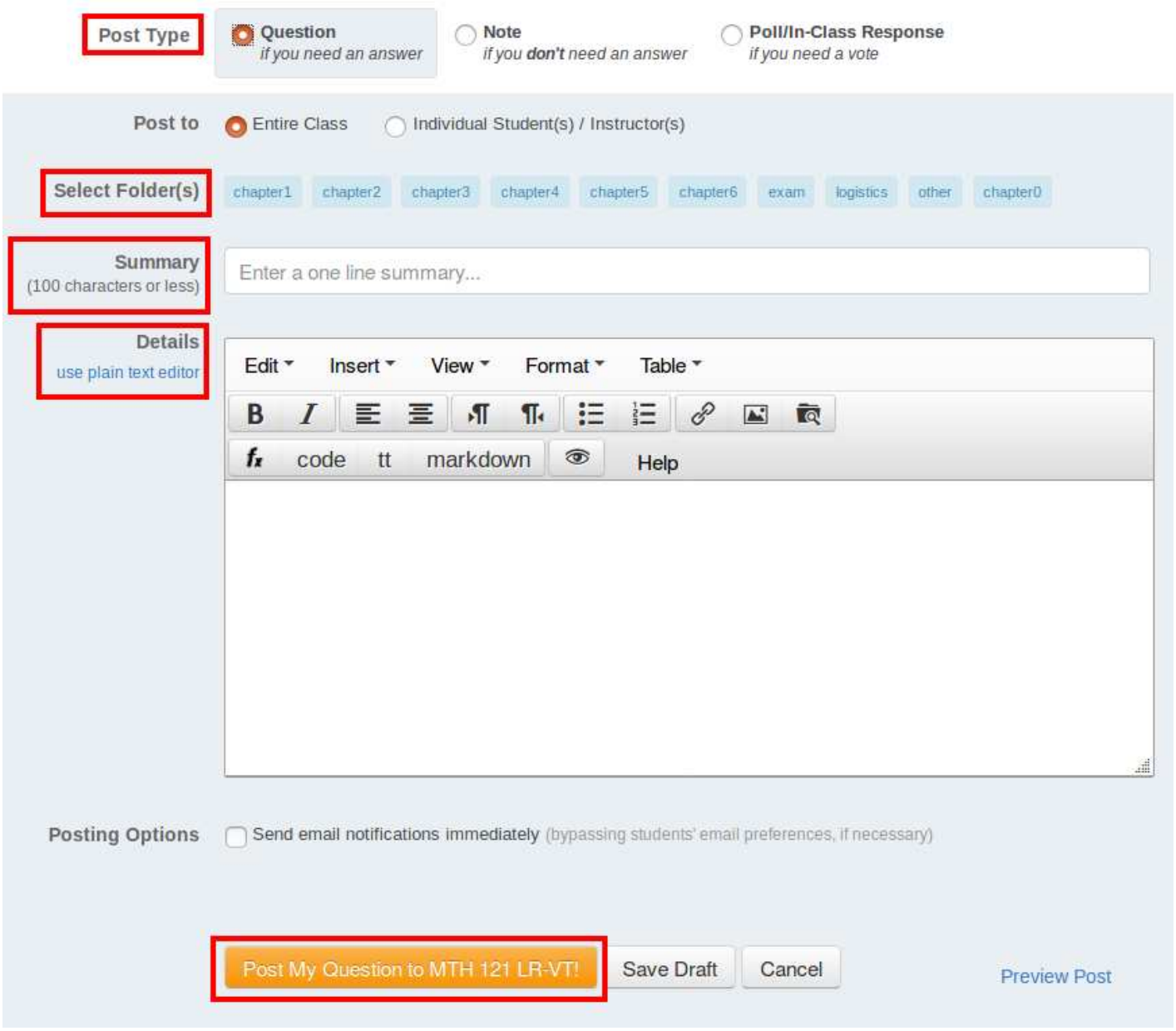
## Some Relevant Course Policies

- Attendance Policy
- Office Hour Policy

# How to Format Your Question

Any question posted on the discussion board must adhere to the following conditions or it may be deleted.

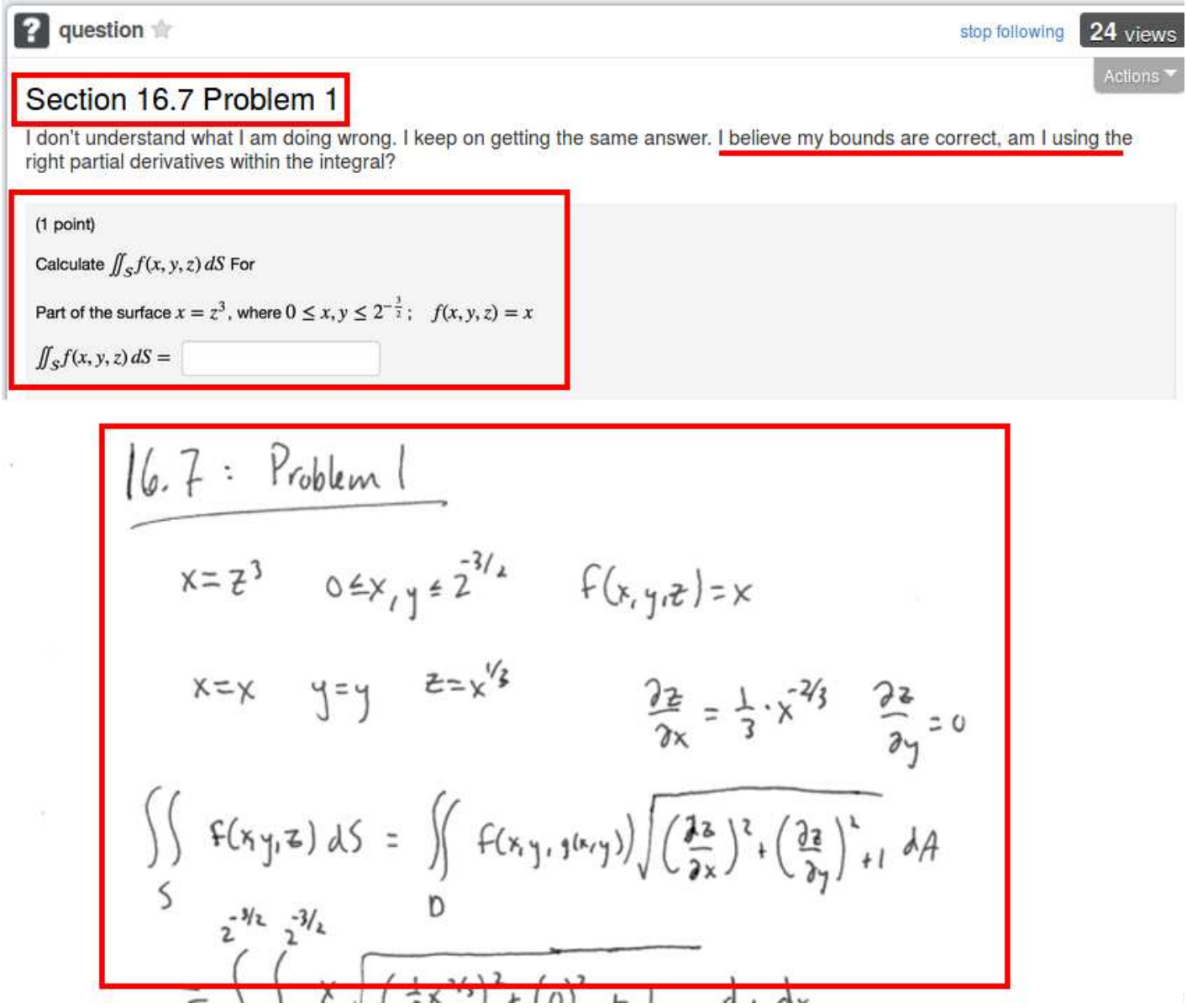
- **Question Summary:** This is essentially the subject line of your question.
    - For homework related questions use the format: **2.5 Problem 4** corresponding to question number 4 from section 2.5.
    - For other questions give a brief one-line description.
- **Question Details:** This is essentially the body of your question. Ultimately, we need to see evidence that you have actually attempted the problem.*The goal of this discussion board is to help you determine where you are getting stuck, not just give you the answer.*
    - Restate the entire problem from the homework.
    - Provide at least a portion of your attempted solution. **(You can also post photos).**
    - Explain where you think you are getting stuck and what the potential issue might be.
- **Repeated Questions:** Ideally, there should only be one post per homework problem. Any subsequent questions should be posted as a follow-up discussion within the original post. This means before posting a question you should look at all old posts to see if it has already been asked.




"A picture of the Piazza Question Interface. When posting a question students fill out Post Type (question or note), Folder (a tag for the question to help keep things organized), Summary (the subject line of the question), and Details (the main body of the question)."

# An Adequate Post

Below is an example of what we would consider a **good question**. This is only meant to give you an idea of what we are looking for when you post a question; your post does not have to look exactly like this.



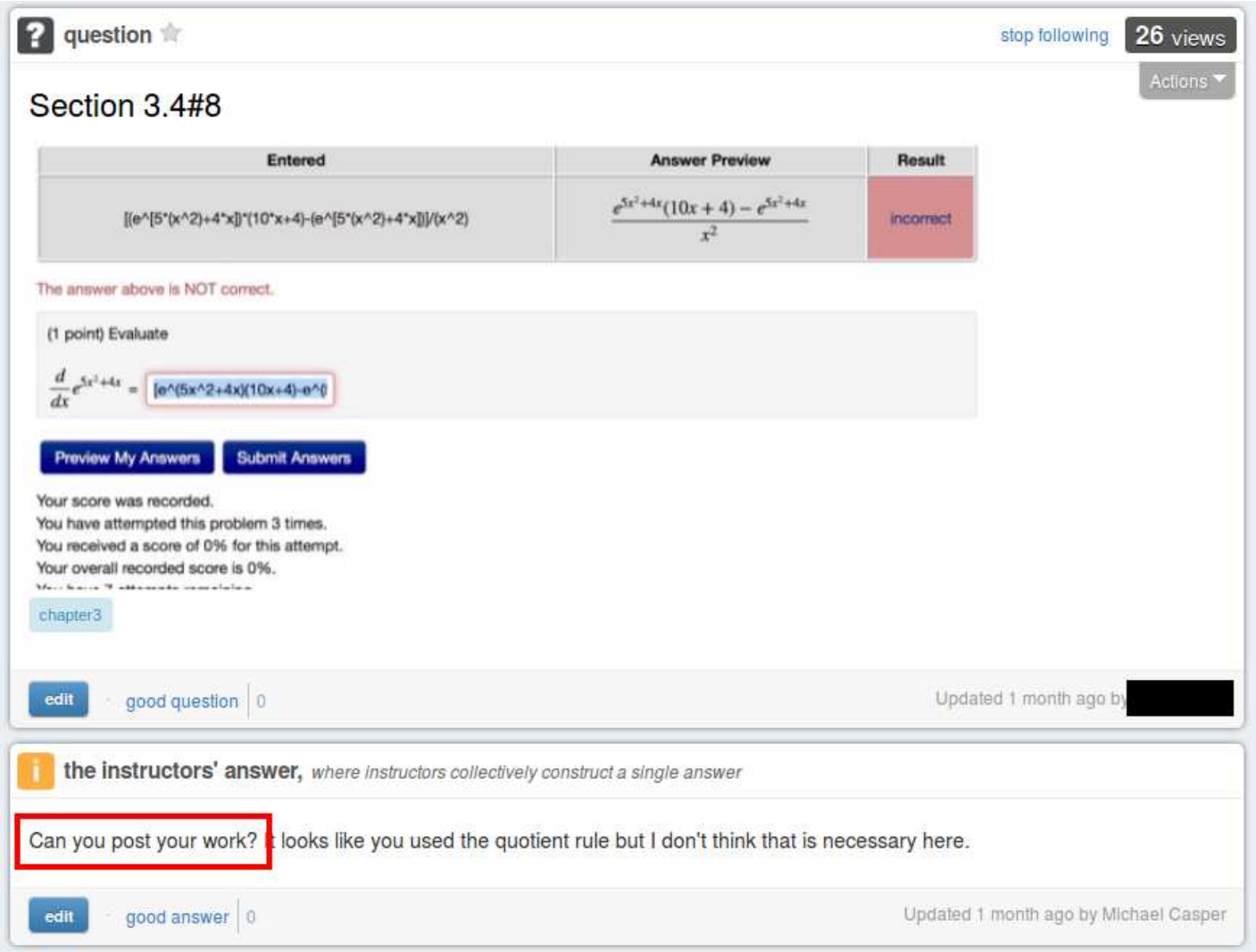

Okay, so why is this such a good post?

- The **question summary** follows the correct format: 16.7 Problem 1.
- The student includes their **actual homework problem** (usually there is some randomization here, so everyone's problems are slightly different).
- The student includes a photo of their **attempted solution** (we cut off some of the photo here for brevity).
- In their actual question, the student has given some **explanation** as to what they believe is correct in their work and what might be the issue.

# An Inadequate Post

Below is an example of what we would consider an **inadequate question**. These are the types of questions that usually elicit our stock response of: *Can you post your work?* Remember your instructor

cannot usually read minds ... we need to see what you are doing!




""

What did the student get correct here?

- The **question summary** follows the correct format: 3.4 #8.
- The student includes their **actual homework problem**.

Alright, so what is missing?

- The student does not include their **attempted solution**, typed out or as a photo. (Remember we can't read minds!).
- The student does not give an **explanation** as to what they believe is correct in their work and what might be the issue. Actually, the student does not even ask a question here! Remember: *The goal of this discussion board is to help you determine where you are getting stuck not just give you the answer.*

# EXAMS

## Overview

There will be two paper-based midterm exams. These exams must be taken **in-person** either at UB or an instructor approved off-campus testing center. Please note the exams are not administered online but rather in a paper-based format. There will not be a cumulative final exam.

## Allowable Material

For each exam, you are allowed one 8.5”x11” formula sheet (one-side only) handwritten on the instructor-supplied pdf (this will be distributed once the Add/Drop period has ended). No calculators or electronic devices will be allowed. **Make sure you bring a photo ID with you to the proctoring site.**

## Exam 1

Content: Ch.7, Ch.9
Date: Friday, January 11, 2019
Time: 12:00-3:00pm ET - (it is a 3 hour exam)
Location: To Be Determined (room Knox 20 if taken at UB)

## Exam 2

Content: Ch.10, Ch.12
Date: Wednesday, January 23, 2019
Time: 12:00-3:00pm ET - (it is a 3 hour exam)
Location: To Be Determined (room Knox 20 if taken at UB)

## Some Relevant Course Policies

- Academic Integrity Policy
- Calculator Policy
- Exam Date and Time Policy
- Exam Location Policy
- Exam Make-Up Policy
- Exam Registration Policy
- Exam Regrade Policy

# EXAM REGISTRATION

## Overview

Everyone has the option to sit for their exams either at UB or an instructor approved off-campus testing center. If you are interested in taking your exams off-campus, we have a list of resources to help you locate a testing center (in the Getting Help section of this website).

The exam registration form is how you communicate to the instructor where you will be taking each of your exams. It is extremely important that you fill this out correctly and by the deadline, regardless of where you are planning on taking the exams. (Even if you plan on taking the exams at UB, you still need to complete this form.)

**Note**

The deadline for submitting the Exam Registration Form is: **Thursday, January 3, 2019 at 11:59pm ET**.

**Note**

**Exam Registration Policy**: You will automatically receive a **grade of "F"** in the course if your exam arrangements are not approved by the instructor by Tuesday, January 8, 2019 at 5:00pm ET.

Exam Registration Form

## Exam Registration Form

Access the Exam Registration Form using the above button. Please refer to the following instructions before completing this form. It is extremely important that you complete this form correctly and timely.

# Instructions for Exams Taken at UB

For those people planning on taking their exams at UB, the arrangements have already been done for you. Please note that this option is available to everyone and is included with your tuition.

- **Step 1:** Read through all of the Exam-Related Policies.
- **Step 2:** Complete the exam registration form indicating that you will be taking the exams at UB.
- **Step 3:** That's it!

# Instructions for Exams Taken Off-Campus

For those people looking to take their exams at an off-campus testing center, these arrangements have not been done for you. It is the student's responsibility to locate a testing center and schedule an appointment with them for our scheduled test date and time. If necessary, you can use different sites for each exam. Your testing center and appointments will then be reviewed by the instructor during the Exam Registration Form Approval Process.

Please note that this option is available to everyone although the **off-campus testing site might charge you an additional fee**. Any fees charged by an off-campus test site are the student's responsibility.

- **Step 1:** Read through all of the Exam-Related Policies.
- **Step 2:** Contact the testing center at a local college or university. (Use the phone if necessary).
- **Step 3:** Find out if they will be open on our scheduled test dates and how much money it will cost you for them to proctor your exam.
- **Step 4:** Schedule an appointment with this testing center to take each exam on the scheduled date and time. *Remember, it is your responsibility to schedule your appointments.*
- **Step 5:** Find out the relevant contact information for your test site (Testing Center Name, Phone Number, Website, Email, etc.).
- **Step 6:** Complete the exam registration form with all of this information.
- **Step 7:** That's it! You will be notified by the instructor if your arrangements are approved or rejected during the Exam Registration Form Approval Process.

# The Approval Process

Beginning Thursday, January 3, 2019 the instructor will review all exam registration form submissions and notify you about the status of your arrangements. *You will have at least one day to make adjustments if your arrangements are initially rejected.* Approval will be subject to 3 conditions:

1. Your registration form is complete with all necessary details.

2. Your chosen test site is an acceptable testing location. See the Exam Date, Time and Location Policies.
3. The instructor has verified all of your exam appointments with your chosen test site(s).

# Timeline

- **Thursday, January 3, 2019** - The instructor will begin reviewing all exam registration form submissions.
- **Monday, January 7, 2019 at 11:59pm ET** - The instructor will notify you whether your form has been approved or rejected. *You will have one day to make adjustments if your arrangements are initially rejected.*
- **Tuesday, January 8, 2019 at 5:00pm ET** - This is the final deadline for all people whose arrangements are initially rejected.

# How You Will Be Notified

You can check the status of your exam registration form in the "Your Grades" section of our UBlearns course site. If the status of your form is:

- **approved**, you will see your exam locations explicitly listed on UBlearns.
- **rejected**, you will see your exam locations listed on UBlearns as "pending". You will also receive an email notification in this case.
- **not processed yet**, the entries for your exam locations will be blank.

Email notifications will only be sent out if there is a problem with your form. You will not receive an email notification if it has been approved.

# Exam Registration Form Grading

The Exam Registration Form is worth a total of **5% points**.

You will receive **2.5% points** for completing the registration form and scheduling your exam appointments by the Exam Registration Form deadline, Thursday, January 3, 2019 at 11:59pm ET.

- Any missing information on your form will result in 0 points for this portion of the assignment.
- Any changes to your exam arrangements after they have been approved by an instructor will result in 0 points for this portion of the assignment.

You will receive the **remaining 2.5% points** if all of your exam arrangements are approved by the instructor by Tuesday, January 8, 2019 at 5:00pm ET.

- Any unscheduled appointments (off-campus) will result in 0 points for this portion of the assignment.
- Any changes to your exam arrangements after this deadline will result in 0 points for this portion of the assignment.

# HOMEWORK

## Overview

The best way to learn mathematics is by practicing it for yourself. Homework will consist of both graded and ungraded problems.

Graded Homework

## Graded Homework

The graded homework sets for each lecture will be completed online using MyMathLab. In general, **all homework problems are due on the HW Date at 11:59pm ET**. See the course schedule for more information. However, it is strongly recommended that you actually finish the homework well before this time.

MyMathLab is maintained by the textbook publisher Pearson. An access code comes bundled with an eBook version of the textbook for $103.95.

**All students must purchase Permanent / Full Access for the homework on MyMathLab**. Any student using only the Temporary Access will lose any saved or previously recorded work at the end of the course. It is okay to use the Temporary Access period at the start of the course, but all students must purchase Full Access to MyMathLab before the date of our first course exam.

- **Course ID for MyMathLab:** placito25956
- **Initial Login Information:**
    1. Go to: www.pearson.com/mylab or use the above button.
    2. Under Register, select: Student.
    3. Confirm you have the information needed, then select: OK! Register Now.
    4. Enter your instructor's course ID: **placito25956**, and Continue.

5. Enter your existing Pearson account username and password to Sign In. You have an account if you have ever used a MyLab or Mastering product. If you don't have an account, select Create and complete the required fields.
6. Enter the access code that came with your textbook or that you purchased separately. (You will have the option to purchase your access code at this step.)
7. From the 'You're Done!' page, select: **Go To My Courses**.
8. On the My Courses page, select the course name **MTH 122 Winter 2019** to start your work.

- **Attempts:** You have 99 attempts on most problems.
- **Grading:** Each problem set is weighted equally (regardless of the number of questions in it). You will receive full credit for a question as long as you ultimately arrive at the correct answer within the allowable number of attempts.

# Ungraded Homework

The ungraded homework sets for each lecture will be problems assigned from the textbook. They are meant as additional practice to help you prepare for the graded assessments. It is strongly recommended that you attempt at least some of the ungraded textbook problems before starting the graded homework online. The ungraded problems will not be collected or graded.

# Some Relevant Course Policies

- Academic Integrity Policy
- Calculator Policy
- Email Policy
- Exception Policy
- Late Policy

# GRADING

## Your Course Average

Your final average will be found by averaging your grades with the following weights:

| Assessment | Weight |
|---|---|
| Exam Registration Form | 5% |
| Homework | 20% |
| Highest Exam | 45% |
| Lowest Exam | 30% |

## Your Letter Grade

Your final letter grade will be determined from your final average by applying the cutoffs:

| Final Average | Letter Grade |
|---|---|
| 90-100% | A |
| 88-90 | A- |
| 83-88 | B+ |
| 80-83 | B |
| 78-80 | B- |
| 73-78 | C+ |
| 70-73 | C |
| 68-70 | C- |

| Final Average | Letter Grade |
|---|---|
| 63-68 | D+ |
| 60-63 | D |
| 0-60 | F |

# Incomplete Grades

An incomplete grade (I) will only be given under extraordinary circumstances. Additionally, an incomplete will only be given if you have a passing average on all previously graded work in the course.

# Some Relevant Course Policies

- Academic Integrity Policy
- Attendance Policy
- Exam Registration Policy
- Exception Policy
- Late Policy

# COURSE POLICIES

## Academic Integrity

Cheating in any form will not be tolerated. Any violation of this policy will be pursued to the fullest extent of university policy.

## Attendance Policy

- **Technological Attendance:** We will be using UBlearns and UBmail (email) for all official course communications, therefore it is required that you check both of these platforms daily.
- **Lecture Attendance:** You are expected to watch all assigned lecture videos in their entirety by the assigned lecture date. Attendance records will be kept, but will not be used in grade calculations.
- **Recitation and Office Hour Attendance:** Attendance in the recitations and office hours (discussion board) is optional although highly recommended.

## Calculator Policy

You are free to use a calculator for homework and studying. However, calculators, cell phones, and any other electronic devices will not be allowed in the exams.

## Copyright Policy

All course material is protected under applicable copyright law and the academic integrity policy of the university.

- **Unauthorized Distribution:** Reproduction and distribution of material is prohibited without the instructor's consent. Copies may be made for private, individual study, but should not be shared with unauthorized users.

- **Unauthorized Possession:** Posession of any material from previous courses is prohibited. Any violation of this policy will be pursued to the fullest extent allowable by law and university policy.

# Curve Policy

All grades are calculated as described in the grading section of this syllabus. There is no curve in this course. Homework assignments and exams are designed to assess your individual understanding of the learning outcomes. Your grade is completely within *your control* and based solely on *your performance*.

# Email Policy

It is required that your university (buffalo.edu) email address be used for all official course email correspondence.

While we encourage everyone to ask questions, email should only be used for personal matters. **Any questions related to the course that are not of a personal nature should be asked on the discussion board or during recitation**. Please allow 24 hours during the work week for a response from the instructor. Emails will not be answered over the weekend.

# Exam Date and Time Policy

- **Date:** All exams must be taken on the scheduled exam day.
- **Time:** All exams must be started at the scheduled time.
- **No Exceptions** will be made for either of these policies.

# Exam Location Policy

It is the student's responsibility to find a testing facility, schedule an appointment with this facility, and obtain instructor approval of their arrangements. The testing facility does not need to be the same for every exam.

Every student has two options for where to take each exam :

- **On-campus at UB** - This is included with your tuition.
    - If you are taking an exam at UB, the testing arrangements have already been made for you. However, you still need to fill out the exam registration form.

- **An approved testing facility outside of UB** - The testing site might charge an extra fee.
    - The testing facility must be located in the US or Canada.
    - The testing facility should be in a university or college although alternative locations will be considered on a case-by-case basis. In almost all cases, public libraries and high schools are not acceptable test sites and will not be approved.
    - The testing facility should have a dedicated, unbiased proctor that will be present for the duration of the exam.

# Exam Make-up Policy

Due to the short Winter Session schedule, there will not be any make-up exams.

# Exam Registration Policy

Everyone, regardless of where they are taking the exam, needs to complete the exam registration form.

- Failure to complete the exam registration form by the required deadline and subsequently obtain instructor approval of your exam arrangements will result in an “F” in the course.

# Exam Regrade Policy

Any request for an exam regrade must be made within 4 business days of the original exam date.

- This is a complete regrade of the exam, with the possibility that questions originally marked correct might be changed to incorrect (so it is possible that your exam score might go up, stay the same, or be lowered in the process).

# Exception Policy

Requests for exceptions to any policy or grading assessment described in this syllabus will not be granted. This is to ensure that all students are given equal opportunity to succeed in this class and are all graded by the same set of standards.

# Fees

Your chosen testing site might charge you an extra fee for their proctoring services. This fee is the student's responsibility. If you take the exams at UB there is no fee beyond the normal fees charged with your tuition.

# Late Policy

All assignments are due by the posted due date and time. Late submissions will not be accepted; deadlines will not be extended for any reason.

- Do not save homework assignments until the last minute. There might be a slight difference in the server clock time with your local clock time.

Once a problem set closes, it will not be reopened for any reason.

# (Discussion Board) Office Hour Policy

Involvement with the discussion board and office hours in general is optional and will not be graded.

- If you choose to participate it is expected that:
    - You are up-to-date on all lecture material and readings.
    - Your discussion board post follows all correct formatting guidelines.
- You can post questions on the discussion board at any time. However, please be advised that questions will usually be answered during normal business hours (9-5pm). It is our goal to have all questions answered within 24 hours during the work week (but most likely much sooner).

# Recitation Policy

Attendance is optional and will not be graded; although it is highly recommended. If you choose to participate in a recitation it is required that:

- You have both watched and taken notes on the lecture material up through that day.
- You come prepared with your notes and attempted homework solutions readily available.

Please be aware that:

- The instructor reserves the right to check your lecture notes for completion at any time during the recitation. You may be asked to leave if your notes are found to be missing or incomplete.
- Each online recitation will be recorded and posted in the Recitation Archive.

# FURTHER INFORMATION

## Accessibility Resources

If you have a diagnosed disability (physical, learning, or psychological) which will make it difficult for you to carry out the coursework as outlined, or requires accommodations such as note-takers, readers, or extended time on exams, please advise me during the first week of the course so we may review possible arrangements for reasonable accommodations.

## Changes to the Syllabus

This syllabus is subject to amendments as needed. Changes will be announced to the class electronically via email and posted on the course UBlearns page.

## Controlled Enrollment Courses

This is a Controlled Enrollment Course. If you need to repeat this course in the future (because you failed it, resigned from it, etc. at the first attempt) you may be forced to do it in a UB summer or winter session. Registering to repeat this course in a Fall or Spring semester may be difficult or impossible. For more information see the Repeat Policy in the UB Undergraduate Catalog.

## Portfolio

If you are completing this course as part of your UB Curriculum requirements, please select an 'artifact' from this course that is representative of your learning and upload it to your UBPortfolio account. Templates have been created for this purpose. Artifacts include homework assignments, exams, research papers, projects, lab reports, presentations, and other course materials. Your final UB Curriculum requirement, UBC 399: UB Curriculum Capstone, will require you to submit these 'artifacts' as you process and reflect on your achievement and growth through the UB Curriculum. For more information, see the UB Curriculum Capstone website.

# Troubleshooting

If you are having difficulty viewing the lecture videos, try the following:

- Check your internet connection. Videos might take longer to load on a slow connection.
- Give the video extra time to load once you select play.
- Make sure you are using the latest version of your internet browser: Chrome, Edge, Firefox, Opera, Safari, etc...
- Some older versions of Chrome have been known to cause issues.
- Close all open programs, browser windows, browser tabs besides the one window needed for the video.
- Completely close and restart your browser.
- Clear your browser history and cookies.
- Try a different browser.

# LEARNING OUTCOMES

## Assessed in HW & Exam #1

1. Compute and interpret partial derivatives of functions of more than one variable.
2. Solve basic optimization for functions of two variables using the second derivative test.
3. Solve basic constrained optimization problems.
4. Solve least square problems.
5. Evaluate indefinite and definite integrals of basic functions using integration by parts and integration by substitution.
6. Approximate values of definite integrals using midpoint, trapezoid, and Simpson's rules.
7. Evaluate simple improper integrals.

## Assessed in HW & Exam #2

1. Understand the basic form of differential equations and applications of such equations in mathematical models.
2. Check if a given function satisfies a given differential equation.
3. Check if a given function satisfies a given differential equation.
4. Approximate solutions of differential equations using Euler's method
5. Understand the notions of sample space, discrete random variable, and probability.
6. Understand the notion of a continuous random variable and its density function.
7. Compute probabilities associated to continuous random variables using integrals.
8. Compute expected value, variance, and standard deviation of discrete and continuous random variables and interpret their values in applications.
9. Recognize exponential and normal random variables and understand some applications where such random variables appear.
10. Compute probabilities associated to a normal random variable with known mean and standard deviation using tables.