Course Description	Fundamental concepts of analytic geometry and calculus; functions, graphs, limits, derivatives and integrals.
Course Format	In-Person, Dawson 106 & 108 MoWeFr 2:00pm–3:20pm *Classes will normally be held in Dawson 106.* *We will move to Dawson 108 after quiz on Fridays.*
Instructor Information	Sungju Moon, PhD **Primary Contact:** Use the Inbox tool within Canvas **Office Location:** Dawson 223 **Phone:** (702) 992-2725 **Email:** sungju.moon@nsc.edu Instructors use the Canvas Inbox and announcements to communicate about course-specific topics. All other official University communication is conducted using Nevada State University-issued e-mail addresses (e.g., @students.nsc.edu) in order to comply with the Family Educational Rights and Privacy Act (FERPA). If you need assistance accessing your NSU e-mail account, contact the NSU Support Center at 702-992-2400, menu option 3, or online at NSU Support Center. For more about this, see the Student Responsibilities page.
Office Hours	TuTh 12:30–3:20pm, Fr 3:30–4:50pm, or by appointment
E-mail Response Time	You can generally expect a response to emails within 24-48 hours (or slightly longer over weekends or holidays). Feedback for completed discussions, quizzes, and assignments depends on the length and complexity of the activity and could take up to 10 days. For questions on the status of a completed assignment, discussion, or test please contact me.
Required Text(s)	Boelkins, M., Austin, D., Schlicker, S., *Active Calculus*, 2018 Updated ed. This is a free online textbook available at: URL: https://activecalculus.org/single/frontmatter.html
Learning Outcomes	After finishing this course, you will be able to: • Evaluate limits using graphical, numeric, and algebraic methods. • Calculate derivatives using graphical, numeric, and algebraic methods. • Solve optimization problems using calculus ideas and techniques. • Use the Fundamental Theorem of Calculus to evaluate definite integrals.
Class Schedule	See Page 8 of the course syllabus for the tentative class schedule. All dates are subject to change.

Assignment Description & Due Dates

Homework Assignments (30%): Homework Assignments will consist of *exercise problems* and *activity problems*. Exercises generally involve routine calculations and straightforward applications of the ideas discussed in class. Activity problems will require some thinking and will be tackled during the Friday "hands-on" sessions.

Final answers will be provided for the exercise problems. There will be incentives for finding errors in the provided final answers. Your exercise solutions must include (a) explanations on how you got the right answer (i.e., "showing your work") and/or (b) in case you could not get the right answer, where you think things went wrong. The exercises will be graded based on completion.

We will be tackling the activity problems in class during Friday "hands-on" sessions in groups. While communication and collaboration amongst classmates are encouraged, each student must submit their own solution in their own words (i.e. do not "divide and conquer"). The activity problems will be graded based on completion, accuracy, and exposition.

All of the submitted solutions must read as if you are explaining it to help a friend learn the material.

Mini-Projects (10%): Mini-projects are group activities. Details will be announced in class.

In-Class Participation (10%): Students must submit a good-faith effort to complete the activities in class.

You will be asked to fill out exit tickets to summarize what we have discussed about the topic at the end of each class session on Mondays and Wednesdays. Use this space to ask questions or provide feedback. The exit tickets can be anonymous or you may write down your name if you want personalized feedback from the instructor.

The Friday sessions will look a little different. See Page 7 of the course syllabus to view the guide to the Friday "hands-on" sessions.

Exam Description

Exams (4 exams, 10% each): There will be four exams, one for each chapter. Exams are to be taken in class on the dates listed on the course calendar. Students may use a calculator. Students are allowed to use a single page (front and back) of notes for the designated "open-notes" portion of the exam.

Late Policy

When students miss work for medical and/or personal reasons, they should access the Student Absence Notification System.

Late homework assignments from the first half the course will be accepted until the date of Exam 2. Late homework assignments from the second half of the course will be accepted until the date of Exam 4.

Homework Assignments may be resubmitted for live-grading for up to full credit provided the following conditions are met:

1. The assignment was submitted on time.
2. The initial grade on the assignment was 50% or higher.

Live-grading means that students will initiate the resubmission process by presenting their reworked solutions accompanied by verbal explanations so that the instructor can provide feedback on the spot. Resubmissions for the assignments from the first half of the course must be initiated by the date of Exam 2. Resubmissions for the assignments from the second half of the course must be initiated by the date of Exam 4.

Live-grading means that students will come prepared with a reworked solution so that the instructor can provide feedback on the spot. Late Homework Assignments will only be accepted until the corresponding exam date.

The following assignments may *not* be turned in late for credit without explicit permission from the instructor:

- In-Class Participation
- Quizzes
- Mini-Projects
- Exams

To make-up for any missed Friday "hands-on" activities, groups must meet outside of class (online or in-person) and submit a summary report of the meeting to the instructor.

You cannot receive a passing grade for the course without completing all major assessments.

Grading Criteria

Your grade will be determined by the following rubric:
(Course Point Totals)—100%

- Homework Assignments (30%)
- Mini-Projects (10%)
- In-Class Participation (10%)
- Quizzes (10%)
- Exams (40%; 10% each)

Grading Scale (Letter Grade and Point Range):

A	93% or higher	C	73%–76.99%
A-	90%–92.99%	C-	70%–72.99%
B+	87%–89.99%	D+	67%–69.99%
B	83%–86.99%	D	63%–66.99%
B-	80%–82.99%	D-	60%–62.99%
C+	77%–79.99%	F	less than 60%

Accessing Grades and instructor feedback

To access your grades and find all of the instructor's feedback, click on Grades in the course navigation menu. Scroll through the list until you find the new graded assignment (indicated by the blue dot to the left of the assignment name). Then click on the assignment name. You will see your grade. Below it you can click on Show Rubric to see the marked up rubric. Click on the paper title if you want to download the original document. (The instructor's marks or comments will not appear on the downloaded document.) Click on the box to the right of the paper title to see the Turnitin report. Click on View Feedback to see the paper marked up with the instructor's comments/corrections in DocViewer. The instructor's feedback is on the right. Accessing Grades will take you step-by-step through how to find all instructor feedback and see the marked-up paper and rubric.

Student Responsibilities

Students are responsible for reading, understanding, and abiding by the policies listed on the Student Responsibilities page and LASB-specific policies, including, but not limited to:

- Americans with Disabilities Act (ADA) Accommodations
- Student Email Policy
- Diversity and Inclusion Statement
- Appropriate Online and Video-Conferencing Behavior
- Video- or Audio-Recording Lectures
- Withdrawing from a Course
- Academic Resource
- Student Absence Notification
- Enrollment Cancellation for Non-Attendance
- Technical Support and Minimum Technical Requirements
- Military and Veteran Students
- LASB Academic Conduct Policy

Plagiarism, cheating, and copyright infringement

Plagiarism can involve directly quoting, summarizing, or paraphrasing the work of others without specifically citing sources, or handing in work that is not your own. For more on this see the Copyright, Plagiarism, and Citing Sources page.

Cheating can involve deception about your own work or about the work of someone else, and can include unauthorized giving or receiving of information in exams or other exercises or assessments. The use of books, notes, mobile devices, or other reference materials and/or collaboration with other students is strictly prohibited on all quizzes and exams unless specific permissions have been given by the professor. Violating this rule is considered cheating. All assignments, quizzes, and exams, for both in-person and online classes, are to be completed by each student individually, unless otherwise documented by the instructor.

Copyright infringement includes sharing or posting course materials on external websites or other locations; NSU instructors' course materials are their intellectual property and are protected under copyright.

Detailed explanations and examples of plagiarism, cheating, and other forms of academic misconduct can be found in the LASB Academic Conduct Policy and in the Academic Standards section of the NS Student Code of Conduct. *You are responsible for reading, understanding, and abiding by these policies.*

The grade of 0 or F may be assigned for any assignment, quiz, or exam in which plagiarism or cheating is discovered; depending on the severity of the incident (including whether the student has previous incidents), a grade of F may be assigned in the course and a Student Conduct charge may be filed. Evidence of such dishonesty will be kept on file, and will not be returned to the student. Instructors have the responsibility to report such incidents to the Dean and the NSU Conduct Office. Serious penalties may be imposed, depending on the nature of the incident.

Turnitin

By taking this course, you agree that all required assignments may be submitted to Turnitin for detecting plagiarism. All submitted papers will be included as source documents in the Turnitin reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin service is subject to the Turnitin End-User License Agreement posted on the Turnitin site. If you do not agree, contact your instructor immediately.

Artificial Intelligence

Use Only With Permission. Students are allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT or Bard) on assignments in this course if instructor permission is obtained in advance. Unless given permission to use those tools, each student is expected to complete each assignment without substantive assistance from others, including automated tools. Students are responsible for ensuring the accuracy of any information provided by an AI tool.

Source: Adapted from the University of Delaware:
https://ctal.udel.edu/advanced-automated-tools/

Student Success Resources

At some point in the semester, you may require assistance for a variety of issues. Here is a brief list of helpful resources:

- Academic Advising Center
- Academic Success Center
- Writing Center
- Student CARE Team
- Financial Aid Office
- Mental Health Counseling

The Academic Resources page has various academic resources including the academic calendar; disability accommodations; library guides; plagiarism, copyright, and citation information; and veteran concerns.

If life circumstances are making it difficult for you to succeed, please reach out to me and let me know. I am willing to work with you to devise a plan for success or make recommendations for other support services on campus. For example, I may connect you with an Academic Advisor who can develop a personalized success strategy that will keep you on track to graduate and discuss any impacts to your financial aid. You can also contact Academic Advising directly at (702) 992-2160 or at studentsuccess@nsc.edu.

Emergency CARE Services

Emergency CARE Services—If you are struggling with hunger, unstable housing, safety, mental health worries or ANY other concerns, contact case manager, Laura Hinojosa. Together, we can help meet those needs. E-mail: laura.hinojosa@nsc.edu | Call: (702) 992-2514 | Website: www.nsc.edu/care

Friday "Hands-On" Activities Guide

Stage 1: Quiz & Debrief

On most Fridays, there will be a short quiz for you to take (5–7 minutes). Immediately following the quiz (once everyone has turned it in), you will gather in groups and discuss the quiz problems with your fellow group members (10–15 minutes). Once everyone is in agreement, you can ask the instructor to confirm your solutions. Upon confirmation, your group will receive a ★ and begin the next stage by moving to Dawson 108 (down the hallway).

Stage 2: Work on the Activity Problems in Groups

Set up a workstation for your group around a whiteboard in Dawson 108 (there are 7 available). You are now tasked with a set of activity problems. Work on one problem at a time. Once your group has reached a consensus on a working solution to a problem, designate one person from your group as the "compiler". The compiler's job is to finalize the group's solution.

If everyone is in agreement after the compiler presents their solution to the group, designate another person from your group (cannot be the same as the compiler) as the "presenter". The presenter will summon the instructor and present the group's solution to the instructor. If the solution is acceptable, your group will receive a ★. If the solution is not acceptable, you will get some feedback and will get to try again next time when the instructor comes around.

Once you earn a ★, move on to the next activity problem and repeat the process for the remainder of the session. Collect as many ★s as you can!

How to get unstuck. There will be times when you get stuck during the activities. Here are some ways to resolve the issue:

1. Ask for hints and/or clarifications from the instructor.
2. Send a spy to take a peek at how other groups are dealing with the problem.
3. "Instructor Chance": once per session, you can use one ★ to appoint your instructor as the compiler for a problem.

Group secretary. It may be helpful to designate one person from your group as the group secretary who will keep track of the number of ★s earned, make sure no one person is dominating the compiler/presenter roles, and keep track of the group's progress, etc.

Stage 3: Write Up Your Own Solutions

As you write up your solutions to turn in (along with the exercise problems as part of your homework assignment), you can continue communicating with your peers; however, the written work that you turn in must be your own.

Course Schedule—All Dates are Subject to Change

Date	Agenda	Assignment	Due†
Mon, Aug 28	Introduction, Discussion: rate of change (1.1)		
Wed, Aug 30	Discussion: limits and infinity (1.2)		
Fri, Sep 1	Quiz 1 (uncounted), Activity: rate of change	HW1	
Mon, Sep 4	Labor Day		
Wed, Sep 6	Discussion: continuity (1.7)		HW1
Fri, Sep 8	Quiz 2, Activity: limits & continuity	HW2	
Mon, Sep 11	Discussion: derivatives (1.3, 1.4)		
Wed, Sep 13	Discussion: 2nd derivative (1.6)		HW2
Fri, Sep 15	Quiz 3, Activity: using derivatives (1.5)	HW3	
Mon, Sep 18	Discussion: tangent line approximation (1.7)		
Wed, Sep 20	Exam Review		HW3
Fri, Sep 22	Exam 1		
Mon, Sep 25	Discussion: basic derivative rules (2.1)		
Wed, Sep 27	Discussion: sines and cosines (2.2)	HW4	
Fri, Sep 29	Quiz 4, Activity: derivative rules		
Mon, Oct 2	Discussion: product and quotient rules (2.3)		HW4
Wed, Oct 4	Discussion: other trig functions (2.4)	HW5	
Fri, Oct 6	Quiz 5, Activity: differentiation practice		
Mon, Oct 9	Discussion: chain rule (2.5)		HW5
Wed, Oct 11	Discussion: inverse functions (2.6)	HW6	
Fri, Oct 13	Quiz 6, Activity: scary derivative problems		
Mon, Oct 16	Discussion: implicit differentiation (2.7)		HW6
Wed, Oct 18	Discussion: evaluating limits (2.8)	HW7	
Fri, Oct 20	Quiz 7, Activity: evaluating limits		
Mon, Oct 23	Exam Review		HW7
Wed, Oct 25	Exam 2		
Fri, Oct 27	Nevada Day Holiday		
Mon, Oct 30	Discussion: extreme values (3.1)		
Wed, Nov 1	Discussion: families of functions (3.2)	HW8	
Fri, Nov 3	Quiz 8, Activity: families of functions		
Mon, Nov 6	Discussion: global optimization (3.3)		HW8
Wed, Nov 8	Discussion: applied optimization (3.4)	HW9	
Fri, Nov 10	Veteran's Day Observed		
Mon, Nov 13	Discussion: related rates (3.5)		HW9
Wed, Nov 15	Exam Review		
Fri, Nov 17	Quiz 9, Activity: related rates		

Mon, Nov 20	Exam 3		
Wed, Nov 22	Discussion: ideas about integration (4.1)		
Fri, Nov 24	Thanksgiving Holiday		
Mon, Nov 27	Discussion: Riemann sum (4.2)		
Wed, Nov 29	Discussion: definite integrals (4.3)	HW10	
Fri, Dec 1	Quiz 10, Activity: numerical integration		
Mon, Dec 4	Discussion: Fundamental Theorem of Calculus (4.4)		HW10
Wed, Dec 6	Discussion: antiderivatives (5.1)	HW11	
Fri, Dec 8	Quiz 11, Activity: definite integrals		
Mon, Dec 11	Discussion: 2nd FTC (5.2)		HW11
Wed, Dec 13	Exam Review		
Fri, Dec 15	Exam 4		

[†]Not including Mini-Project due dates