Mayville State University

MATH 165-01: Calculus I - 34967

Spring 2025
4 Credit Hours

Course and Instructor Information

Instructor Name: Taylor Simon

Contact Information: Office: Classroom Building Room 107 (enter through room 108 lobby door)

Email: taylor.simon@mayvillestate.edu Office phone: 701-788-4726

Hours of Availability: Mon 11:00-11:50am, Tues 9:00-9:50am, Wed 8:00-8:50am. Other times by appointment

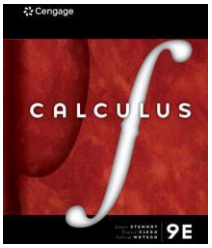
Instruction Mode: on-campus face-to-face

Meeting Times and Location: MTuWTh 10:00-10:50am, Classroom Building Rm 105, Jan 13 – May 16

Zoom Link: https://mayvillestate.zoom.us/j/86558873406

Course Materials and Technologies

Required



- **Book:** *Calculus* by James Stewart, Daniel K. Clegg, Saleem Watson | 9th Edition | Copyright 2021. ISBN: 978-1-337-62418-3
- Computer with access to internet. Web sites may be used for learning purposes. Use of phones/computers during exams/quizzes will not be allowed.
- A graphing calculator (I will use a TI-84) or a device with appropriate software.

Course Description

This course will cover limits, continuity, differentiation, Mean Value Theorem, integration, Fundamental Theorem of Calculus and applications.
Pre-/Co-requisites: Math 103, Math 105

Course Objectives

To successfully complete this course, the learner will be expected to meet the following objectives, as aligned to Composite Science and Mathematics Education Program Approval Standards through North Dakota's Education Standards and
Practices Board (ND ESPB):

1. Work with functions, their derivatives, and their applications
2. Interpret limits and continuous functions
3. Determine the derivative of a function and use technology to help analyze derivatives
4. Apply the rules of differentiation and solve applications using them
5. Work with definite integrals and their applications
6. Work with the Mean Value Theorem and its applications
7. Demonstrate an understanding of how to solve problems using the Fundamental Theorem of Calculus

Standards Alignment (Composite Science and Mathematics Education Program Approval Standards-ND ESPB):

- Science: 13047.1 Composite Science Major/General Science The composite/general science program requires that environmental science be incorporated within other courses or as a separate course.

The composite/general science program requires: 1. Coursework in biology, chemistry, physics, and earth science, including: a. Minimum of twenty four semester hours in one area, b. Minimum of twelve semester hours in two other areas, c. Minimum of four semester hours in the fourth area, d. Courses must be from those that the institution allows toward graduation in the science major. 2. Study of mathematics through the pre-calculus level (college algebra and above) and statistics

- Math: 11010.1 Mathematical Practices and Processes: The program requires the candidate to demonstrate the following: a. makes sense of problems and perseveres in solving them, b. reasons abstractly and quantitatively, c. constructs viable arguments and proofs, d. critiques the reasoning of others, e. uses mathematical models, f. attends to precision, g. identifies elements of structure, h. engages in mathematical communication
- Math 11010.3 Secondary School Content Knowledge: The program requires the teacher candidate to demonstrate and applies knowledge of secondary mathematics concepts, algorithms, procedures, applications in varied contexts, and connections within and among mathematical domains (Complex Number System, Algebra, Geometry, Trigonometry, Statistics, Probability, Calculus, and Discrete Mathematics)
- Math 11010.4 Undergraduate Mathematics Content Knowledge: The program requires the teacher candidate to demonstrate and apply knowledge of the core mathematics content including calculus, axiomatic geometry, linear and abstract algebra, statistics, probability, and computer programming

Enrollment Verification

The U.S. Department of Education requires instructors to conduct an activity which will validate student enrollment in this course. Class attendance will be used to verify enrollment in on-campus courses. If you do not attend, your enrollment in this course will be at risk.

Course Timeline/Schedule

During this course, we will work to cover topics from chapters 1-5 of our required text. Due dates will be discussed in class.

Continuity of Academic Instruction for a Pandemic or Emergency

The health and safety of our students, staff, and faculty is our top priority. Mayville State University is committed to continuing face-to-face instruction for on campus courses each semester while minimizing exposure risk and promoting health and safety for students, faculty, and staff.

If there is a significant health or safety event that necessitates a change in course format, plans for remote options for this course are as follows. We will meet synchronously via zoom. Assessments would be submitted in Blackboard.

Course Expectations

Instructor/Student Communication

You are accountable for all academic communications sent to your Mayville State University e-mail address. You should check your university email at least once a day. You are also responsible for frequently logging into blackboard and attending office hours if needed.

Learning Experiences

Regular attendance and participation are expected. This includes asking and answering questions, working on in-class activities and assignments, etc. Read the book. Take meaningful notes. Videos and PowerPoints for

each lesson are posted in Blackboard. Please stop by my office anytime you have a question!

Assignments and Assessments

Check-Your-Understanding Questions (CYUQ): These assignments are posted in Blackboard. Always show your work. Written assignments can be submitted in Blackboard as a scanned PDF.

Quizzes: There will be weekly quizzes. The questions will be similar to the CYUQ. You can use your notes on quizzes, so take meaningful notes!

Assessments There will be three cumulative assessments. Two throughout the semester and a final exam. **Assessment 1: February 20th, Assessment 2: April 3rd, Final Exam: TBD together.** Tests are cumulative to promote long-term learning.

Evaluation and Grading

Grading Policies

Check-Your-Understanding Questions: Below is an example of CYUQ for a lesson.

- p. 100: # 9, 11, 25, 26, 30, 32, 33, 36, 41, 43, 45, 57, 58
- What is the slope of a line? How can you find it?
- Write down two facts about perpendicular lines.
- What problem was the most challenging for you and why?

Problems with page numbers are from the book. Additional written questions are tied to the problems from the book.

Because you have access to the answers for the book problems, you will be required to mark these problems following the steps below. An example of marked student work is shown below. You do not need to mark the additional written questions.

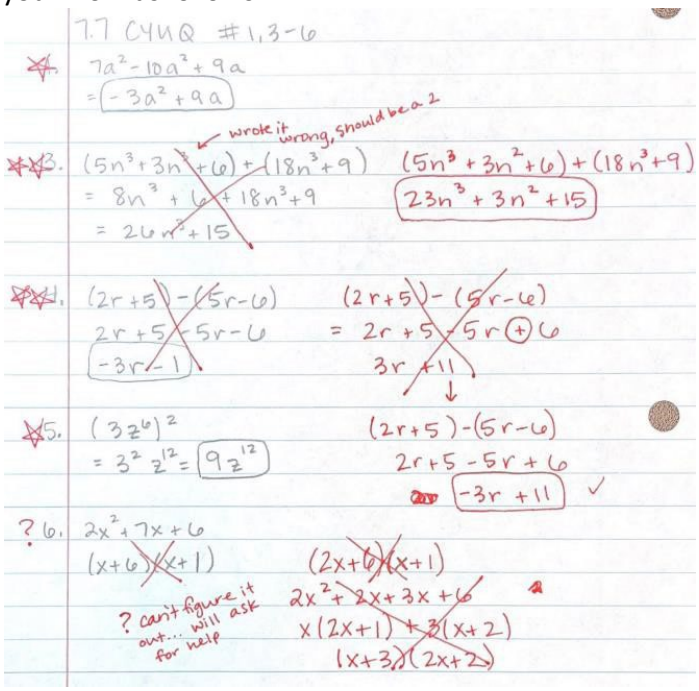
Step 1: Carefully read and complete a problem from the CYUQ in *pencil*.
Step 2: Check your answer in Blackboard.
Step 3: Using a red pen (any distinct color will work), mark your work as follows:

★ GOT IT ON THE 1ST TRY (one star): I got the problem right the first time I tried. I completely understand the problem.

★ ★ GOT IT ON THE 2ND TRY or 3rd or 4th… (two stars): I got the problem wrong on my first try. I did the problem again in red pen until I got it right. I understand my mistake and understand the problem now.

? STILL DON'T GET IT: I tried my best (multiple times), but my answer is still wrong. I can't find my mistake. I will get help on this problem from a teacher, tutor, friend, or classmate.

Repeat this process for all CYUQ. Try to provide *detailed* explanations of your mistakes.



Each CYUQ assignment will be worth two points. One for the book problems and one for the additional written questions. These problems are intended to be a safe place for you to make mistakes and learn.

I will review your assignment for completion and provide feedback when necessary. You will receive a zero on the assignment if it is NOT self-marked, if you are missing the additional written questions, or if there is no work shown. If an assignment is submitted late, it will be worth 50% of the earned grade. CYUQs should be submitted within a week of the due date to receive any credit.

Quizzes and Assessments: Quizzes are worth more points than CYUQ, and assessments are worth more points than quizzes. Total points for each quiz/assessment will vary. If you are absent (unexcused) on the day of an assessment, 3 points will be deducted from grade. If the final is taken at a date/time other than what is scheduled, the earned grade will be dropped one letter grade.

Attendance/Participation Policies

If illness or other circumstances prevent you from attending class, contact me **prior** to your absence. It is your responsibility to ask for work missed during an absence. You are responsible for keeping up with work assigned whether you attended class or not. Work is due on the due date even if you are absent**. If you miss class unannounced, you have 2 weekdays to reschedule activities, quizzes, or assessments. After that, missed work will receive a zero.**

Grading Scale

A	85 – 100 %
B	70 – 84.9 %
C	50 – 69.9 %
D	35 – 49.9 %
F	0 – 34.9 %

Breakdown of Grades

This class uses a total points grading system. Your final grade is calculated by dividing the total points earned throughout the semester by the total points available from assignments and assessments.

Program Student Learning Outcomes (SLOs) Addressed in This Course:

The Academic Program Student Learning Outcomes document can be found in your course shell. It contains all learning outcomes pertaining to Essential Studies courses and all majors and minors. The document has an index, so you can quickly find the degree you are pursuing.
As part of Mayville State's effort to demonstrate continuous improvement in achieving student learning outcomes, this course:

☒ Introduces SLO # 1 ☒ Introduces SLO # 2 ☒ Introduces SLO # 3

Course Improvements Based on Most Recent Assessment Findings:

This course will be assessed in the future (based on the 2019-2025 assessment curriculum map) and the findings will be reported in this syllabus.

Mayville State University

Instructions for Scanning Work

When scanning your work, **make sure that multiple pages are scanned into a single PDF document**.

Option 1: Use a scanner. Email the scan to yourself. Download your scan. Submit your scanned document in Blackboard.

Option 2: Download the app "CamScanner" to scan your documents. After scanning all your pages in **one** document, select the document and select "share." Then choose "Share PDF." Share to your email. Open the email on your computer and download the PDF to your computer. Submit this **single PDF** in Blackboard. The app is free to use unless you decide to make in-app purchases.

Option 3: If you have an iPhone, iPad, or Android, you can use your device to scan documents! This is different from hitting the camera button and taking a picture.

iPhone/iPad Instructions

a. Open a note or create a new note.
b. Tap the paperclip or camera icon, then tap "Scan Documents."
c. Place your document in view of the camera on your device.
d. If your device is in Auto mode, your document will be automatically scanned. If you need to manually capture a scan, tap or one of the Volume buttons.
e. Drag the corners to adjust the scan to fit the page, then tap "Keep Scan."
f. You can add additional scans to the document or tap "Save" when you are done.
g. Tap the arrow next to scanned documents for a drop-down menu. Scanned Documents
h. Select "Share" and email the scan to yourself.
i. Open the email on your computer and download the .pdf file. Submit to Blackboard.

Android Instructions

a. Open Google Drive app.
b. In the bottom right corner, tap "Add" New,
c. Tap "Scan" or "Use Camera".
d. Take a photo of the document you would like to scan.
    i. Adjust scan area: Tap "Crop".
    ii. Take photo again: Tap "Re-scan current page".
    iii. Scan another page: Tap "Add".
e. To save the finished document, tap "Done"
f. Open the file in Google Drive and download to your computer. Submit to Blackboard.

Important Student Information

In the Announcements section of the Blackboard Institution Page, you can view and download the Important Student Information document for the current academic year. It includes information about:

- ✓ Land Acknowledgement Statement
- ✓ Academic Grievance Concerns and Instructor English Proficiency
- ✓ NetTutor - Online Tutoring Program
- ✓ Starfish - Student Success System
- ✓ Students with Documented Disabilities
- ✓ Student Learning Outcomes / Essential Learning Outcomes
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement (Title IX)

The instructor reserves the right to change the information in the syllabus at any time during the course.