

SYLLABUS

MATH 151 Calculus I Fall 2023

Instructor: Ivan C. Sterling, 177 SH, cell 240-431-8185, isterling@smcm.edu.

Office Hours: TBA & by appt

Book: Calculus Volume 1, Openstax

Course Outline: Selected Sections from Chapters 1-5

Tests and Grades: There will be four exams (worth 80% of your course grade, 20% each). One of the four exams will be the non-comprehensive final. Homework will be part of your grade (worth 20%). The homework will be collected at the beginning of class on the day it's due. Late homework will not be accepted. After it is collected I'll select some homework problems for the TA to grade. The exams will be the same or similar to the homework. You may ask me your grade status at anytime in person or by email. You can earn up to two extra credit points, which often improves your final letter grade, by attending special Math/CS lectures at Wed 4:45 SH106 9/20 and 11/08.

Dates for the exams: Fridays 9/22 10/20 11/17; Final: Wed 12/13 9-11:15 am.

Grading(roughly) 90-100% A,A-;80-90% B+,B,B-;70-80% C+,C,C;60-70% D+,D;0-60% F;

Teaching Assistant: TBA, tba@smcm.edu, phone TBA, Office Hours: TBA

Review Sessions: Required! Wednesdays SH109 6:10-7:25

In this class, students can expect Engaged Learning at the Review Sessions.

For Business Use Only:

- At the completion of MATH 151, students will be able to implement the rules for taking derivatives as demonstrated by finding the derivatives of a variety of functions.
- At the completion of MATH 151, students will be able to use derivatives to understand the behavior of functions as demonstrated by determining the slope and concavity of a function given partial information about the function and/or its derivatives.
- At the completion of MATH 151, students will be able to interpret rates of change of various quantities as derivatives as demonstrated by solving word problems that model dynamic scenarios.
- At the completion of MATH 151, students will be able to interpret the fundamental theorem of calculus as demonstrated by explaining the relationship between derivatives and integrals.
- At the completion of MATH 151, students will be able to represent derivatives and integrals as demonstrated by taking a limit of approximating values.