

SYLLABUS

MATH 255

Vector Calculus

Fall 2023

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

Office Hours: TBA & by appt

Book: Calculus III – Marsden & Weinstein

Course Outline: Chapters 13-18

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.

Dates-Times for the exams:
Thursdays 9/21 10/19 11/16
Final: Thursday 12/14 7-9:15pm;

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: name email phone office-hours review-sessions TBA

In this class, students can expect Engaged Learning in 3D Printing.

For Business Use Only

At the completion of MATH 255, students will be able to explain the theoretical bases of various dramatic genres as demonstrated by illustrating them with examples from plays of different eras.
At the completion of MATH 255, students will be able to structure the relationship between algebra and geometry as demonstrated by converting systems of equations to objects in three dimensions (lines, planes, spheres) and vice versa.
At the completion of MATH 255, students will be able to use the rules of calculus with vectors as demonstrated by computing directional derivatives of multivariable functions.
At the completion of MATH 255, students will be able to coordinate various conditions for and consequences of conservativity of vector fields as demonstrated by manipulating the conditions and consequences within problems on vector fields.
At the completion of MATH 255, students will be able to use the Stokes and Divergence theorems as demonstrated by computing special volume and surface integrals.