MA265 SYLLABUS

Class Meeting Hours
- Monday, Wednesday, Thursday
- 12:00 – 12:50 PM, New Science Facility 1205

Instructor
- Roxin Zhang
- Office: New Jamrich 2208
  rzhang@nmu.edu

Office Hours
MWRF 11:00 – 11:50 am

Computer and Calculator Requirements
- A computer with Maple installed (mandatory)
- A scientific calculator is needed for day-to-day work
MA265 SYLLABUS

Prerequisite
- A C- or better from MA163.

Text Book
Multivariable Calculus (7e)
by James Stewart

Tests and Quizzes
- 5 - 6 Quizzes (in-class or take-home) (drop one lowest quiz)
- One Midterm
- One final exam, check NMU website Final Exam Schedules
- Note: Any of the quizzes and tests can be a projects involving computing.
Grading

- Quizzes and Projects  50%
- Midterm  20%
- Final Exam  25%
- Attendance  5%

Homework

- Homework will be assigned daily and you must work on the assigned problems to understand the concepts.
In this course, our main focus is on multivariable calculus – calculus for functions involving more than one variable. Topics includes:

- Vectors in the plane and in space, space analytical geometry;
- Vector functions and motion, surfaces, coordinate systems;
- Functions of two or three variables, their derivatives and integrals in various coordinate systems;
- Maxima and minima of functions, and applications;
- Vector analysis
Learning Outcomes

Upon completion of this course, student should be able to

- Understand the analytical properties of functions in space and with multivariable functions.
- Comprehend the geometric meanings of mathematics forms in 3D space and have insight in higher dimensions.
- Compete calculus calculations, including derivatives, integrations and limits of functions in space.
- Use space calculus to solve large classes of mathematical, geometrical and application problems. Many times the calculations can be completed with much less steps compared to the approaches without calculus.
- Modeling related application problems with multivariable calculus.
CHAPTERS COVERED

- Chapter 12
  Vectors and the Geometry of the Space
- Chapter 13
  Vector Functions
- Chapter 14
  Partial Derivatives
- Chapter 15
  Multiple Integrals
- Chapter 16
  Vector Calculus
WHERE TO GET HELP?

- Ask Instructor
- Mathlab West Science 3810, 227-1612, Hours on Door
- All Campus Tutoring: 227-2618
- Form study groups
If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 2001 C. B. Hedgcock (227-1700). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.