

Syllabus – MA 363 Analysis I – W21

Instructor: Dr. TRUONG, Bao

Meeting: MTWR 9 – 9:50 a.m. at Jamrich 3319

Office Hours: MWRF 11 – 11:50 pm, or by appointment (via Zoom)

E-Mail: btruong@nmu.edu

Instruction Delivery: Face-to-Face

This is a face-to-face class whenever we are all healthy and safe from COVID-19. Attendance every day is expected. More than a couple unexcused absences is unacceptable. Of course, excuses for academic reasons, illness, participation in university sporting events, and significant life events will be accepted. If you miss a day, find a friend who can help you catch up, read the text thoroughly, and then I will be glad to help you with specific questions.

NMU's Mask Requirement:

Northern Michigan University is now requiring everyone on campus to wear a mask covering their mouth and nose. When indoors and in a public space, the university is asking all students and employees to social distance and requiring them to wear a mask.

Course Description:

The emphasis of this course is primarily on learning the modern rigorous approach to mathematics in the context of calculus with **the strong emphasis on proof and precision**. The calculus component includes “set and functions, topological ideas, sequences, continuity and uniform continuity, properties of continuous functions, mean value theorems, integration theory in one and two variables, evaluation of double and improper integrals.” The proof component includes proof techniques, concept definitions, precisely stated theorems, conditional statements, hypotheses and conclusions, logic for mathematics, conjectures, counterexamples, and rigorous proofs.

Required text:

Witold Kosmala, A Friendly Introduction to Analysis; Single and Multivariable, 2nd ed., Pearson, 2004.

Prerequisite:

At least a C or better in MA211 and MA365

Student Learning Outcomes: After completion of this course, students will be able to

- State and prove properties of the real numbers and n -space.
- Write logical proofs of theorems from calculus
- Use the epsilon-delta definition to prove properties of sets and functions.
- Verify the concepts found in the study of calculus such as continuity, uniform continuity, limits, differentiation, and integration.

These objectives will be assessed through performance on homework, quizzes, exams, and contributions to the course Discussion Forum.

EduCat is used as the class platform for this course. I will post readings, homework assignments and their solutions, and other information about the course. Please check there regularly for updates. If you haven't done so already, please make sure you forward your NMU email to an email account that you frequently use. Otherwise, you might be missing some important information.

Class Discussion/Participation (5%): You are required to contribute to the class discussion. The discussion questions will help you to broaden your knowledge of unit concepts. You are required to post a response to the discussion question and post comments to other students' postings.

Homework: Homework is due every Friday. Late homework will not be accepted without prior approval. I encourage you to study and work with others currently in the class. If you have difficulties, post your question on the discussion forum and/or come see me.

Exam: There are two midterm exams and a comprehensive final exam. Exam dates will be announced on the course EduCat site.

Grading Policy: Grading Scale

A (93% up)	A – (90 – 92.9%)	
B + (87 – 89.9%)	B (83 – 86.9%)	B – (80 – 82.9%)
C + (77 – 79.9%)	C (73 – 76.9%)	C – (70 – 72.9%)
D + (67 – 69.9%)	D (60 – 66.9%)	F

Weighted percentage:

Class Discussion/Participation: 5% **Midterm: 40%,**

HW: 25% **Final: 30%**

The grading may be less stringent, but not more stringent, than this.

Academic Needs: If you have a need for disability-related accommodations or service, please inform the Coordinator of Disability Service in the Disability Service Office by either coming into the office at 2001 C.S. Hedgcock, or calling 227 – 1700, e-mailing disserv@nmu.edu . 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.

There are many resources available to help you succeed in this class and as a student. Here are the links to many campus resources:

Student Handbook: <https://www.nmu.edu/dso/studenthandbook>

Health Center: <https://www.nmu.edu/healthcenter>

Online Student Services: <https://www.nmu.edu/student-service-center/services>

Computer Help Desk (IT): <https://it.nmu.edu/helpdesk>

Disability Services: <https://www.nmu.edu/disabilityservices>

Veterans Services: <https://www.nmu.edu/veterans>

Dean of Students: <https://www.nmu.edu/dso>

Olson Library: <https://lib.nmu.edu>

Counseling Center: <https://www.nmu.edu/counselingandconsultation>

Financial Aid: <https://www.nmu.edu/financialaid>

Everything else offered on this website: <https://www.nmu.edu/students>