

Syllabus for Finite Mathematics 81639 Class MA 113 – 01

CLASS TIME: 9:00 – 9:50 am

INSTRUCTOR: Dr. TRUONG, Bao

OFFICE PHONE: 906-227-1610

OFFICE HOURS: MWRF 11 – 11:50 am, or by appointment

ROOM: WEST 3805

OFFICE: Jamrich 2216

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PREREQUISITES: Placement exam or MA100 (C- or better). Also, students who do not register for the MyMathLab homework by the Monday of the week after class starts will be dropped from the course for non-attendance.

Course Description:

The course covers linear equations, systems of linear equations, matrices, inequalities, linear programming, functions, the mathematics of finance, permutations, combinations and probability. This course is designed primarily for students in business, economics, management, and the social sciences and life sciences. MA 103 builds on the algebraic skills of MA 100 while emphasizing applications, modeling, and decision-making from business, social and natural sciences, medicine, and other areas. It is a prerequisite for MA 171 and satisfies the foundations of natural science- mathematics requirement [Division III]. Students who complete this course should be able to demonstrate a basic understanding of mathematical logic; use mathematics to solve scientific or mathematical problems in college classes; express relationships in the symbolic language of mathematics; and appreciate the role of mathematics in analyzing natural phenomena.

Instruction Delivery: Modified on-campus.

This course will meet on campus and will have a face-to-face component but probably will include a subset of the class meeting at any one time. Some students will meet face-to-face on Monday & Wednesday and the rest will be in class on Tuesday & Thursday. Those students not in class may be observing class via Zoom.

1. Student needs to check the schedule of face-to-face classes each week on EduCat.
2. Each student is assigned a seat in the room. It is fixed during the semester for tracking the spread of COVID 19, when needed.

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.

Websites for this class:

- 1) **Educat:** <https://educat.nmu.edu/> as the class platform for this course. All grades and course directions will appear on the Educat homepage for this course.
- 2) **Pearson's MyMathLab:** www.MyMathLab.com E-book, homework and quizzes. There will be a link to this site at the top of our Educat homepage.

To register for Finite Mathematics with your NMU student e-mail address

1. Go to <https://www.pearson.com/mylab>.
2. Under Register, select **Student**.
3. Confirm you have the information needed, then select **OK! Register now**.
4. Enter your instructor's course ID: **truong59572**, and **Continue**.
5. Enter your existing Pearson account username and password to **Sign In**.

You have an account if you have ever used a MyLab or Mastering product.

- If you don't have an account, select **Create** and complete the required fields.

6. Select an access option.
 - Enter the access code that came with your textbook or that you purchased separately from the bookstore.
 - If available for your course,
 - Buy access using a credit card or PayPal.
 - Get temporary access.

If you're taking another semester of a course, you skip this step.

7. From the You're Done! page, select **Go To My Courses**.
8. On the My Courses page, select the course name **Finite Mathematics** to start your work.

Required Textbook:

Finite Mathematics, 12nd Edition, by Goldstein. Purchase the online homework package as well. Note: the online homework package has a copy of the e-text embedded in it, so if you think you can manage without a physical copy of the book, you can get by with just the online homework. Some students do better with a physical book to look at. If this is the case, just be aware that you still need to purchase the online homework access as well. You may purchase on the publisher's website or through the NMU bookstore.

Required Devices:

1. A computer is required to access EduCat and MyMathLab to complete learning activities of the course.
2. Most of work is done online, so you need internet access. High speed internet access such as DSL or cable is required.
3. You might need a smartphone for CamScanner app or a scanner.
4. You might need a Scientific or especially a Graphing Calculator that a useful tool in the study of Mathematics. You are encouraged to bring one to class every day and to use one to check your homework.

Required Technical Skills:

This online course uses both EduCat and publisher materials. There are minimal technical skills required of you to be successful in the course. Below is a list of technical skills you should have.

1. Log in to your EduCat account (<https://educat.nmu.edu/>) and access course materials provided in EduCat.
2. Log in to your MyMathLab account (www.MyMathLab.com) and complete learning activities.
3. Use a scientific or non-CAS graphing calculator (one that does not do algebra).
4. Be able to access the technologies used in this course, you will need Adobe Reader and Adobe Flash Player. If your computer does not have this software, you can go to the Adobe website at <http://www.adobe.com/products/> and download this software at no charge.
5. Use a scanner to scan a multiple page document into one pdf file and post it into Educat; CamScanner is an app for smartphones and the Lydia M. Olson library on campus has a great scanner.
6. Use email with attachments.
7. Use Zoom or another video conferencing application; you can download Zoom from <https://support.zoom.us/hc/en-us/articles/201362233-Where-Do-I-Download-The-Latest-Version->.
8. Capture work on your screen using the PrtSc key or some program (only necessary if you have questions on work done on your screen that you need to send me).
 - Windows instruction video (<https://www.youtube.com/watch?v=sPpYhwdYIes>)
 - Mac instructions (<http://www.printscreenmac.com/>)

Course Objectives: Upon successful completion of this course the student will be able to:

1. Model and solve systems of equations using matrices.
2. Model and solve linear programming application problems.
3. Solve applications in interest, amortization, annuities, and sinking funds in the financial mathematics.
4. Use basic counting techniques to calculate probabilities for a wide variety of outcomes and events.

Student achievement of these learning outcomes will be measured through performance on homework, quizzes, exams, and contributions to the course Discussion Forum.

You will meet the outcomes listed above through a combination of the following activities in this course:

Communication (not graded):

- a) **Email:** You must use your NMU student email address to register the course in WebAssign. Every time you email me, use your NMU student email address, add a subject line and close your email with a signature line with the student's full name and class ID. I will answer your email within 48 hours after I receive it.
- b) **Announcements:** Each time you log on to Educat you will see the announcement page. Most communication will be done through email, but you should check for new announcements.

Attendance (not graded): Students are expected to attend class on time, to have read the assignment reading and to be prepared to participate in class. University policy states that students are expected to attend all classes. However, illness or unexpected emergencies may arise so it is your responsibility to seek assistance from your instructors and your classmates. Note that "Each day you miss, it takes one day longer to be good." If you are a member of an NMU athletic team, you must give the instructor an official copy of your away game schedule to receive an excused absence for classes you will miss due to your participation on the team and you have to complete the make-up assignment.

Class Discussions (4%): There are several class discussions in EduCat. Your first online assignment is to go to the discussion forum in EduCat and introduce yourself to the class. 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.

Online Homework (12%): Each chapter has several online homework assignments on MyMathLab. You should read the text section and watch lecture videos prior to attempting the homework. You have unlimited attempts to get 100% correct for the online homework assignments until the due date. For each hour of "class" time (i.e. learning the material), you should expect an equal amount of time spent on the homework problems. Do NOT wait until the last minute to start the homework, so that you can get help if you need it before the due dates. The MyMathLab program will not allow you to work beyond the due date. If you request an extension, a 10% penalty is applied to your assignment for each week past the due date.

Quizzes (12%): There is a quiz for each section studied in the course. All learning objectives of a section are tested. You have two attempts and get the better result. In addition, there are short quizzes for important problem solving techniques.

Tests (48%): There will be 4 tests. You have to upload your written solution to EduCat and submit your original work in class. You are only allowed one attempt on each test. To help you prepare there are practice tests for each chapter. *Make-up tests are not given.* If you miss a test, you will receive a score of 0. Your lowest test score will be replaced by the percentage of the final exam if it is better than your lowest test score. A university-approved excuse is required for rescheduling any test. Students with disabilities should work with Disability Services to arrange for taking tests.

Sep 3 – Test 1, Covers Systems of Equations (chapters 1 and 2)

Oct 1 – Test 2, Covers Linear Programming (chapters 3 and material from chapter 4)

Oct 22 – Test 3, Covers Mathematics of Finance (chapter 10, sections 10.1 through 10.4)

Nov 19 – Test 4, Covers Counting Methods and Probability (chapters 5 and material from chapter 6)

Final Exam (24%): The final exam is comprehensive and must be taken in class on Campus
Monday November 23 for Group A
Tuesday November 24 for Group B

Due dates:

Due dates for each learning activities are posted in EduCat or MyMathLab. I will review your test two or three days after the due date. I may give you partial credit for some problems that the computer counted wrong. You should review your test as well.

Final Grade:

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

Weighted percentage:	Homework	12%	Exams	48%
	Attendance	4%	Quizzes	12%
	Final	24% (comprehensive)		

You must get at least 60% on Homework and 60% on Final in order to pass the course.

How much time should you spend each day on the class?

You should set aside 1-3 hours each day to learn the concepts and complete the assignments. You need to follow the calendar to keep up with the work. You must know the deadlines of learning activities! You should plan for one hour to read the section in the text and view the worked examples, and then spend 1-2 hours to do homework.

How do I get help in the class?

- My office: See me during office hours or set up an appointment to meet via Zoom or in person..
- Mathematics Tutor Lab: Go to the math tutoring lab. More information is posted on Educat when available.
- All Campus Tutoring: Go to All Campus Tutoring (generally available on the weekends). Check their schedule at <https://www.nmu.edu/tutoring/>.

Tips for Success:

Commit yourself to the class on day one. If you devote ample time to working on homework, reading the textbook and your notes, and thinking about the concepts we are learning, you will learn this material and you will learn it well. You will build a strong foundation for future math and science classes, as well as good study and organizational habits, which will be essential throughout your university studies. You have the ability to reach success if you commit yourself to excellence. Moreover, you do not have to reach success alone. Get to know your classmates, and learn with and from each other. Come to see me whenever you have questions.

Email Etiquette Tips:

Did you know NMU provides email etiquette tips at <https://www.nmu.edu/etrpc/email-etiquette>? Please be respectful in all your correspondence with me or other students. This includes email, postings made on Discussion Forums, or any other forms of communication. **Please tell me what class you are in when you email me.** Additional information about NMU's expectations, acceptable standards of behavior, and procedures are in the Student Handbook at <https://www.nmu.edu/dso/studenthandbook>.

Technical Support:

[MyMathLab Student User Guide](#)

WebAssign Tech Support: 800-354-9706 or at [MyMathLab Tech Support](#)

NMU IT Services – <http://it.nmu.edu/helpdesk>

Academic needs:

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1737). 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>