

Mansfield University
Summer 2009

MA 1115-190 Survey of Math Ideas

3 credit hours

Instructor Information

Name: Linda Iseri
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My husband, Howard, is also a member of the Math and CIS Department faculty, so there are two Drs. Iseri. You can call me Linda.

No Text Required: I will be using *Excursions in Modern Mathematics*, Tannenbaum, P. (5th ed.) as a resource for the material we will be learning in this class. This book explains everything we're going to cover, but I will post lecture notes and all assignments in Blackboard. You won't need the book for any of the assignments. The book may possibly go into more detail, and cover many things that won't be in the course. It's a good book, but it isn't necessary for this course.

Catalog Description: This is a liberal arts course that will acquaint students with the nature and scope of modern mathematics. The emphasis will be on understanding the mathematical concepts rather than merely the acquisition of procedures. Topics covered – including voting methods, sharing schemes, graph theory, and growth – are suitable for the non-science liberal arts student. No extensive background in algebra is required.

Course Objectives:

Students in this course will:

- 1) Explore mathematical problems and algorithms that are relevant in today's world. various domains, while employing multiple representations as a tool.
- 2) Make connections between symbolic representations, algorithms, and physical models for standard mathematical procedures.
- 3) Understand that mathematics is based on various assumptions which impact the results and consistency of solutions.

Calculator: You may want to use a calculator for this class, and you will be allowed to use it on tests. A \$10-\$15 scientific calculator or statistical calculator should be sufficient. Actually, the calculator on your computer Accessories will work and is free!

Web Access: You will need to be able to access the Internet. You may do this from home or from most of the computers on campus. Lectures with embedded homework questions will be posted on Blackboard, and you will enter your answers there. Exams will also be taken on Blackboard. To get to Blackboard, go to the Mansfield University [home page](#), under Online Learners, choose the Blackboard to get to the log-in page. Select **SUMMER SERVER LOGIN**. For the most part, web documents will be in Word 2003 format, so you will need some version of Word or a program that will allow you to view and read Word documents without creating or editing them. You can [download](#) a free viewer here. Campus policy requires that we use your Mansfield University email address for all course business. Look at the [Center for Lifelong Learning](#) web page for more information. After you have registered for the course and classes is about to start, you should be automatically enrolled in Blackboard.

Grading: ~20 points each Homework (Generally eight each week).
 50 points Project (To be determined)
 400 points each Three Tests

The homework and project will end up counting for about 1/4 of your total grade, and the tests will count for about 3/4.

Schedule: The three exams are scheduled on Friday of each of the three weeks. The pace you take to go through the lectures and enter the homework is up to you. A suggested schedule will be posted on Blackboard.

Honesty: I expect that you will take each of the tests by yourself and that you will not talk to other students in the class who have already taken a test before you take that test. You may discuss homework with other students.

Letter Grades: Your final course grade will be based on the percentage of points you get out of the total possible. 93% and above is an A, 90% and above is an A-, 87% and above is a B+, 83% and above is a B, 80% is a B-, 77% is a C+, 73% is a C, 70% is a C-, 67% is a D+, 63% is a D, 60% is a D-, and anything below 60% is an F.

Procedures: I will make available a written “lectures” with practice problems which I’ll call homework. The homework answers will be entered on-line. You will be given unlimited opportunity to review your homework answers and to correct them in Blackboard.

Exams will be available on Blackboard from early in the morning of the scheduled day until midnight. Exams are timed and must be completed once you have started to take them.

Most of our interaction will be through Blackboard. There are forums under “Discussion Boards” in Blackboard. Here, you can post questions and answers for other students or for me.

We will cover: voting analysis schemes, weighted voting systems, sharing schemes, apportionment, graph theory, and growth models.

General Education: This course counts for general education in Group 3, Mathematics. Mansfield University is required to assess the General Education program. Artifacts (assignments or projects) from randomly-selected students enrolled in the course will be collected and, after their names have been removed from the artifact, they will be examined by a university committee for how well the assignment addresses the goals of critical thinking, analytical reasoning, problem solving, and communication.

MU Americans-with-Disabilities-Act Statement: Any students with documented psychological or learning disorders or other significant medical conditions that may affect their learning should work through Mr. William Chabala in our Counseling Center (South Hall 216, Phone: 662-4798; e-mail wchabala@mnsfld.edu) to provide me with the appropriate letter so that I may serve their particular needs more effectively. If you have an exceptionality that requires classroom or testing accommodations, Mr. Chabala will work with us to identify and implement appropriate interventions.