

Sections: MA100-05 (11463) 4 credits (8 - 8:50 am) MTWR Room: West Science Building (WS) 3801

MA100-06 (11562) 4 credits (1 - 1:50 pm) MTWR Room: West Science Building (WS) 3801

Instructor: (Ms.) Rosanne Parks

Office: Jamrich Room 2213

Office phone: 227-1479 (No voice mail)

e-mail: rparks@nmu.edu (best way to contact me)

Office Hours:

2 pm – 3 pm MTWR; Other times by appointment

Drop-ins are **always** welcome

Math/CS office: 227-2020

Teaching Assistant: 8 am class: Mary Kuligowski mkuligow@nmu.edu

9 am class: Kasey Kytola kkytola@nmu.edu

Prerequisite: AT LEAST a C– in MA090 or a satisfactory score on the Math Placement Exam.

Required Materials:

- (1) **Text:** *Beginning & Intermediate Algebra* (Fourth Edition) by Miller, O’Neill, and Hyde
- (2) **NMU e-mail account which you must check DAILY**
- (3) **Portfolio:** Loose leaf notebook (**LARGE rings**) for class notes & assignments, tests & quizzes
Refer to the Portfolio Organization Handout.
- (4) **Supplies:** Pencil and eraser (**REQUIRED** for all tests, quizzes, graded assignments, and submitted homework), graph paper, ruler or straight edge
- (5) Scientific calculator (fraction key useful) that is **without algebraic technology**. **A cell phone calculator is not acceptable.** (You do not need a graphing calculator for this course.)

Note: Laptops will not be used in class.

Additional Expectations:

- arrive for every class with required tools: textbook, portfolio (notebook,), pencil, and calculator
- keep cell phones and other electronic devices out of sight (meaning in your back pack) and on silent. (Please speak to the instructor if you anticipate receiving an emergency call during class.)
- be attentive and actively participate in class

COURSE DESCRIPTION: MA100 includes the study of rational, radical, and quadratic expressions, equations and functions, including graphing basic functions, domain and range. Emphasis will be placed on quadratic functions and an introduction to exponential and logarithmic functions. (Chapters 4 – 12 will be covered.)

COURSE GOALS and PURPOSE: This course aims to help students (1) build a secure foundation in algebra skills through meaningful contextual problems and situations and (2) develop skills that will help them succeed in a college-level math class.

STUDENT LEARNING OUTCOMES FOR INTERMEDIATE ALGEBRA

Chapter 4: Systems of Linear Equations

- 1) Solve systems of linear equations
- 2) Use systems of linear equations to solve applied problems involving geometry, cost, investment, mixture, and distance

Chapter 5: Polynomials and Properties of Exponents

- 3) Perform operations on polynomials, including long division

Chapter 6: Factoring

- 4) Factor polynomials, including factoring quadratic trinomials use the ac-method and factoring the sum and difference of cubes
- 5) Solve equations using the zero product property
- 6) Solve applied problems using quadratic equations, including applications involving the Pythagorean Theorem

Chapter 7: Rational Expressions and Equations

- 7) Evaluate, perform operations, and simplify rational expressions
- 8) Solve equations with rational expressions

Chapter 8: Relations and Functions

- 9) Graph and interpret basic functions including the following types: linear, quadratic, cubic, absolute value, and square root. Include the domain and range in interval notation.
- 10) Translate basic graphs
- 11) Perform operations on and compose functions
- 12) Solve applied problems such as those involving variation

Chapter 9: More Equations and Inequalities

- 13) Solve and graph linear absolute value equations
- 14) Solve inequalities. Include compound, polynomial, rational, and absolute value inequalities
- 15) Graph linear inequalities in two dimensions

Chapter 10: Radicals and Complex Numbers

- 16) Evaluate, perform operations, and simplify radical expressions
- 17) Solve equations with radical expressions, including those with complex and extraneous solutions
- 18) Solve applied problems which involve the use of radical equations

Chapter 11: Quadratic Equations and Functions

- 19) Graph and interpret basic quadratic functions. Include domain and range in interval notation
- 20) Translate basic graphs of quadratic functions
- 21) Solve quadratic equations by the following methods: square root method, completing the square method, using the quadratic formula. Include complex solutions
- 22) Solve applied problems which involve the use of quadratic equations

Chapter 12: Exponential and Logarithmic Functions and Applications

- 23) Graph and interpret basic exponential and logarithmic functions. Include domain and range in interval notation
- 24) Solve exponential equations,
- 25) Solve applied problems using exponential equations
- 26) Use properties of logarithms to simplify expressions and solve equations

Learning outcomes will be assessed using assignments, quizzes, tests, and the final exam.

ATTENDANCE: Daily attendance is expected. Attendance will be recorded. Absence from class, for whatever reason, does not excuse a student from any class work or assignments missed. The student must assume full responsibility for making arrangements for any assignments missed due to the absence. Cell phone use in class may result in a student being marked absent for the class.

DEVELOPMENTAL MATHEMATICS TUTORING POLICY:

Students are required to meet with the Teaching Assistant (TA) and/or Instructor during their office hours at any time in which the student's grade on a test is below 70%. Meeting with the TA or Instructor is optional, though strongly recommended, for test grades in the 70 – 79% range. Students must continue to meet with the TA until they achieve at least 70% on a subsequent test.

ASSIGNMENTS:

In order to be successful in a college course, a common guideline is to spend at least 2 hours outside of class for each hour of class time. **Since this is a 4 credit hour course, I strongly encourage you to spend at least 6 to 8 hours on this course outside of class each week** For the sake of your success, be sure to read the textbook for comprehension. Math is not learned by memorizing but by practicing. Therefore, doing homework is one of the most important ways you have to learn.

Reading and problems will be assigned each day. Take accurate and complete notes on the material presented in class. Your notes should include the complete solutions to any examples used during lecture/practice. Each homework assignment (and each section within a homework assignment) should start on a clean sheet of paper and start with a **heading** which includes your name, the date assigned, section, page numbers, and problem numbers assigned. (*Refer to the Portfolio Requirements.*) In doing homework, copy the problem and **SHOW YOUR WORK** for each problem assigned. **Make corrections** as we discuss the problems. **SUGGESTION:** Do not erase your original work. Do your corrections in red ink. At times, you may be asked to submit (for a grade) selected problems from a completed homework assignment. These problems are to be copied from your portfolio without using your textbook. Several homework assignments (with varying point values) will be collected and graded throughout the semester. Late assignments will not be accepted!

Remember: **MATHEMATICS IS LEARNED BY DOING, NOT BY OBSERVING!**

PORTFOLIOS

Portfolios will be collected and graded on test days. Each portfolio check is worth 20 points. Refer to the handout concerning portfolio requirements.

TESTS & QUIZZES: All quizzes and tests must be written in pencil. Quizzes will be given often and are worth 10 – 25 points each. Some may not be announced. No make-up quizzes will be given without PRIOR ARRANGEMENT. For a student with fewer than five absences, the lowest 25-point quiz score will be dropped if doing so would improve the student's average. There will be 5 tests, each worth 100 points. Tests will cover assigned reading, concepts presented in class, notes and assigned homework. **NO TEST SCORES WILL BE DROPPED.** You must take tests and quizzes at their scheduled times. No make-up is possible for any test unless you notify me **before** test time. A documented excuse may be requested in order to take a make-up test. Grades on quizzes and tests are not “curved”.

FINAL EXAM: The *comprehensive* final exam will be worth 200 – 250 points.

WRITTEN WORK: For **written work** (quizzes, graded assignments, tests, final exam, homework), you will be graded not only on correctness, but also on clarity of work. If I cannot read your writing, then a correct answer **will not** get you full credit. You must show all steps. Just giving the answer will not earn full credit. Again, you must show all work. Word (application) problems can often be solved by just “thinking” about it. However, in this class you must use algebra and show all work to earn credit. **Reminder:** All quizzes, tests, graded assignments and the final exam must be done in pencil.

GRADES: To pass this course you must take all tests. Your course grade will be based on the total points earned on your quizzes, tests, graded assignments, portfolio, study skills assignments, and final exam together with any bonus (extra credit) points earned. Grades on quizzes and tests are not “curved.”

The grading scale is: A: 90 - 100%; B: 80 - 89%; C: 70 - 79%; D: 60 - 69%; F: < 60%.

(NOTE: A grade of AT LEAST C– (70%) in MA100 is required for registration in MA111 or MA150.)

EXTRA HELP: My Office: during regular office hours or by appointment
Office Hours with your Teaching Assistant: usually Jamrich 2102 unless scheduled in a different location
Developmental Math Tutoring Lab (Jamrich 2102) Hours: Monday – Friday from 9 am – 6 pm
Math Study Lab/Tutoring Room: Jamrich 2100
Free extra help is available. Tutors are available Monday – Friday from 9 am – 6 pm
All-Campus Tutorial Service (free) in the LRC (evening hours available several days per week)

Study groups are recommended.

The following websites contain short video lessons: www.amybarnsleymath2.com (MA090 topics)
www.amybarnsleymath.com (MA100 topics)

Remember: Teaching assistants meet with you individually or in small groups. Just email them or talk to them in class. Their job is to help improve student success.

8 am class: Mary Kuligowski mkuligow@nmu.edu

9 am class: Kassej Kytola kkytola@nmu.edu

NOTE: The textbook, Beginning & Intermediate algebra; Miller, J; O'Neill, M; Hyde, is on a 2-hour reserve in the library. It is at the front counter is listed under Barnsley and Parks.

DISABILITY SERVICES: 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 or 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.

Here is the website for disability services: <http://www.nmu.edu/disabilityservices/node/1>

OVER for important dates

ACADEMIC INTEGRITY: Students are expected to do their own work and follow the university academic honesty policy. This policy can be found in the student handbook. See the link here: <http://www.num.edu/dso/studenthandbook>

IMPORTANT DATES: (Full Semester Courses)

1) DROPS:

Last day to drop a class with no course record (100% refund & no grade) is Tuesday, January 21, 2020 by 5 pm.
Drop Procedure: <http://www.nmu.edu/records/adddropprocedure>

2) WITHDRAWALS:

Last day for course withdrawal is Friday March 27, 2020 by 5 pm. I will recommend withdrawal for any student earning below 60%. A withdrawal (W) grade and a failing (F) grade have the same effect on your full time status. The difference is that an F grade hurts your GPA, but a W grade does not. It always benefits you to get a W, instead of an F.

Remember: A grade of **AT LEAST C-** (70%) in MA100 is required for registration in MA111.

Withdrawal procedure: <http://www.nmu.edu/records/node/19>

FINAL EXAM DATES:

MA100-05 (8 am class): Wednesday, April 29, 2020 from 8 am – 9:50 am in West 3801

MA100-06 (9 am class): Monday, April 27, 2020 from 8 am – 9:50 am in West 3801 in West 3801
