

Syllabus Intermediate Algebra

Course: MA 100, 4 Credits

Term: Winter 2016

Assistant Professor: Dr. Amy E. Barnsley

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Office Phone: 227-1608 (Don't leave messages. It's better to email)

Office Hours & Location: Jamrich Room 2210, Mon & Wed 12:00- 1:50 pm, Thur 9-11am. Other times by arrangement.

Required Supplies: Aleks 360 access code, 18 weeks Higher Education, ebook included,

Optional Textbook: Beginning and Intermediate Algebra, 4e, Miller, O'Neill, Hyde

Classroom: 2-2:50 pm, WS3806

Websites for this class:

Educat: educat.nmu.edu Course documents, gradebook, discussion forums

Aleks: www.aleks.com Homework, computation quizzes, practice exams, exams, ebook

Instructor website: <http://www.amybarnsleymath.wordpress.com> Math content

Course Description: The study of polynomials, graphing, algebraic fractions, radicals, lines and linear equations and inequalities, quadratic and exponential equations and systems of equations. Applications are emphasized.

Course Goals and Purpose: This course aims to help students build a secure foundation in algebra skills through meaningful contextual problems and situations and to develop skills that will help students succeed in a college level math class.

Student Learning Outcomes for Intermediate Algebra:

POLYNOMIALS AND FACTORING

Perform operations and factor polynomial expressions

Factor sum and difference of cubes

Factor quadratic equations when leading coefficient is not 1

RATIONAL AND RADICAL EXPRESSIONS AND EQUATIONS

Evaluate, perform operations and simplify rational expressions

Evaluate, perform operations and simplify radical expressions

Solve equations with rational expressions

Solve radical equations

Apply complex numbers

LINEAR EQUATIONS AND INEQUALITIES

Apply concepts of sets (unions, intersections, interval notation, set notation, Venn diagrams)

Solve and graph linear absolute value equations

Solve systems of linear equations

Solve and graph linear inequalities

QUADRATIC EQUATIONS AND FUNCTIONS

Solve quadratic equations by factoring

Solve quadratic equations by completing the square

Solve quadratic equations by quadratic formula

Solve quadratic equations by square root method

Graph and interpret quadratic functions
Graph and interpret linear functions
Graph and interpret square root functions
Graph and interpret absolute value functions

APPLICATIONS

Solve applied problems. To include, but not limited to; joint and combined variation, quadratic applications, basic geometry and basic exponential problems.

Prerequisites: Passing grade in MA 090 or satisfactory score on math placement exam.

Technical skills: Student must be able to navigate websites including Educat, Aleks and the instructor's website. They must use and check their @nmu.edu email daily.

Technology requirements: Computer with internet access, graphing calculator or equivalent computer software

Grades: Grades are based on the following scale

90-100%	A
80-89%	B
70-79%	C
60-69%	D
0-59%	F

Your grade has the following components:

Portfolio	5%
Aleks Homework	10%
Quizzes	10%
Practice Exams (4)	5%
Exams (4)	40%
Final Exam	30%
Extra Credit Aleks Pie	5%

Portfolio: Organized notebook with your work. See grading rubric.

Aleks Homework: Homework is done in Aleks. You have unlimited attempts until the due date and time. The Aleks program will not allow you to work beyond the due date and time.

Quizzes: Paper and pencil, done in class.

Practice Exams: Take in Aleks program (two attempts). Show work for every problem on your own paper. Number every problem, and keep your work tidy, put in your portfolio.

Exams and Final exam: Paper and pencil, done in class.

For written work (Practice exams, exams, and final exams) you are graded not only on correctness, but also on clarity of work. If I can't 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 problems can often be solve by just "thinking" about it. In this class you must use algebra and show all work to earn credit.

Math Tutoring Room: Extra help is available for free. Tutors are available Monday-Friday 9 am- 4 pm to help with questions in West Science Room 3810. Study groups with classmates are encouraged.

Disability 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 (227-1700). 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. Here is the website for disability services: <http://www.nmu.edu/disabilityservices/node/1>

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 link here: <http://www.nmu.edu/dso/studenthandbook>

Important dates:

Drop: Last day to drop a class with no course record is January 22, 5pm. Drop procedure: <http://www.nmu.edu/records/adddropprocedure>

Withdrawals: Last day for course withdrawal is March 25, 5pm. I will recommend withdrawal for any student earning below 60%. A W grade and an 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. Withdrawal procedure: <http://www.nmu.edu/records/node/19>

Final exam: Given in regular classroom, April 28, 2-3:50pm