

Math 012B

Instructor: Tony DiMauro

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Textbook: Beginning Algebra, 7th Edition **Authors:** Aufmann, Barker and Lockwood

Publisher: Houghton Mifflin Company, 2008 - bookstore: <http://www.nutextdirect.com>

Course description: Second of a two-course sequence extending skills and logical analysis begun in MTH012A. Course covers rational expressions, linear equations in two variables, algebraic and graphical solutions of systems of equations, scaling and variations, quadratic and rational equations with emphasis on practical applications. Calculator use is highly recommended. (This course is remedial in nature; no collegiate credit will be awarded.)

Course Goals: The second of a two—Course sequence covering basic algebra begun in MTH 012A. Rational expressions; algebraic and graphical solutions of systems of linear equations, roots and radicals; quadratic equations; functions, polynomials, factoring. Completion of MTH 012A and 112B satisfies the requirement for MTH 115. (Scientific calculator is required). Beginning Algebra I & II are designed to take the student from an understanding of arithmetic concepts through the introductory concepts of variables. The second month (MTH 012B) will include systems of linear equations and graphic of linear equations. The Student will be introduced to multivariable polynomials, fractional (rational) expressions and equations, radical expressions, quadratic equations and a discussion of linear and quadratic inequalities. The overall minimum goal for the student is to be able to recognize and graph linear and quadratic functions and to be able to solve equations involving radicals and rational expressions. This beginning course will examine the basics of algebra and its concepts and will formulate the mathematical foundation for future mathematics courses. An emphasis of the course will be setting up and solving "word problems." Examples from the work world will be used to emphasize the usefulness of mathematics for logical analysis. The scientific calculator will be used through-out.

Learning Outcomes: Upon successful completion of MTH 012B, students should be able to:

- Reduce rational expressions to lowest terms.
- Solve linear equations containing rational expressions.
- Simplify complex fractions.
- Use functional notation.
- Develop graphing techniques for linear equations by various methods.
- Solve linear equations by various methods.
- Determine roots of equations.
- Solve quadratic equations by various methods.
- Solve systems of linear equations in two variables by: graphing, addition, and substitution methods
- Recognize standard equations for graphs of conic sections.
- Solve problems involving sequences and series.

Course Requirements

<u>Name of Assignment</u>	<u>Points for each Assignment</u>	<u>Total Points</u>	<u>Percentage</u>
10 Nightly ClassWork Assignments	12	120	19%
8 Homework Assignments	15	120	19%
10 Quizzes (45-60 minutes)	40	400	62%
	Total Points	640	100%

*Late work accepted with a documented emergency. Please be in class each night. Mathematics is strongly sequential in form. If you miss important information you can get caught behind so you will need to catch up.

*Students receiving an unsatisfactory in a course that is required for his/her degree program must repeat the course.

Grading: All grades above 75% (480 pts.) will earn a Satisfactory Grade. All grades below will earn an Unsatisfactory Grade.

Math 012B - Nightly Schedule of Events

Class time is at 5:30 pm to 10 pm each night with a dinner break at 7:15 pm

	Tuesday	Thursday
1	April 7, 2009 5:30 Review <u>Chapter 5</u> Graphing Linear Eq's 6:30 Chapter 6 - Sec 1 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 6 - Sec 2 Lecture and Classwork 9:00 Quiz 1 - Individual Help Ch. 6 Homework: p.333 1, 2, 4, 8, 17, 20, 24, 26, 30, 32, 38, 44, 64, 66 - p340 10, 38 44, 60, 64, 66	April 9, 2009 5:30 Homework Due and Review 6:00 Chapter 6 - Sec's 3/4 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 7 - Sec 1 Lecture and Classwork 9:00 Quiz 2 - Individual Help Ch. 7 Homework: TBD
2	April 14, 2009 5:30 Homework Due and Review 6:00 Chapter 7 - Secs 2/3 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 7 - Sec 4 Lecture and Classwork 9:00 Quiz 3 - Individual Help Ch. 7 Homework: TBD	April 16, 2009 5:30 Homework Due and Review 6:00 Chapter 7 - Sec's 4/5 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 8 - Sec's 1/2 Lecture and Classwork 9:00 Quiz 4 - Individual Help Ch. 8 Homework: TBD
3	April 21, 2009 5:30 Homework Due and Review 6:00 Chapter 8 - Sec's 2/3 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 8 - Sec's 4/5 Lecture and Classwork 9:00 Quiz 5 - Individual Help Ch. 8 Homework: TBD	April 23, 2009 5:30 Homework Due and Review 6:00 Chapter 9 - Sec's 1/2 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 9 - Sec's 3/4 Lecture and Classwork 9:00 Quiz 6 - Individual Help Ch. 9 Homework: TBD
S A T	April 25, 2009 8:00 Homework Due and Review 8:30 Chapter 9 - Sec's 5/6 Lecture and Classwork 9:45 Break - Individual Help 10:30 Chapter 10 - Sec 1 Lecture and Classwork 11:30 Quiz 7 Individual Help Ch. 10 Homework: TBD	
4	April 28, 2009 5:30 Homework Due and Review 6:00 Chapter 10 - Sec 2/3 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 10 - Sec 3/4 Lecture and Classwork 9:00 Quiz 8 - Individual Help Ch. 10 Homework: TBD	April 30, 2009 5:30 Homework Due and Review 6:00 Chapter 11 - Section 1 Lecture and Classwork 7:15 Break - Individual Help 8:00 Chapter 11 - Sec's 2/3 Lecture and Classwork 9:00 Quiz 9 - Individual Help Ch. 11 Homework: TBD
S A T	May 2, 2009 8:00 Homework Due and Review 8:30 Chapter 11 - Sec 3/4 Lecture and Classwork 9:45 Break - Individual Help 10:30 Chapter 11 - Sec 5/6 Lecture and Classwork 11:30 Quiz 10 - Individual Help	

Plagiarism:

Plagiarism is the presentation of someone else's ideas or work as one's own. Students must give credit for any information that is not either the result of original research or common knowledge. If a student borrows ideas or information from another author, he/she must acknowledge the author in the body of the text and on the reference page. Students found plagiarizing are subject to the penalties outlined in the Policies and Procedures section of the University Catalog, which may include a failing grade for the work in question or for the entire course. The following is one of many websites that provide helpful information concerning plagiarism for both students and faculty: <http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

Ethics:

Ethical behavior in the classroom is required of every student. The course will identify ethical policies and practices relevant to course topics.

Technology:

Students are expected to be competent in using current technology appropriate for this discipline. Such technology may include word processing, spreadsheet, and presentation software. Use of the internet and e-mail may also be required.

Diversity:

Learning to work with and value diversity is essential in every class. Students are expected to exhibit an appreciation for multinational and gender diversity in the classroom.

Civility:

As a diverse community of learners, students must strive to work together in a setting of civility, tolerance, and respect for each other and for the instructor. Rules of classroom behavior (which apply to online as well as onsite courses) include but are not limited to the following: Conflicting opinions among members of a class are to be respected and responded to in a professional manner. Side conversations or other distracting behaviors are not to be engaged in during lectures, class discussions or presentations. There are to be no offensive comments, language, or gestures

Students with Disabilities:

Students seeking special accommodations due to a disability must submit an application with supporting documentation, as explained under this subject heading in the General Catalog. Instructors are required to provide such accommodations if they receive written notification from the University.

Writing Across the Curriculum:

Students are expected to demonstrate writing skills in describing, analyzing and evaluating ideas and experiences. Written reports and research papers must follow specific standards regarding citations of an author's work within the text and references at the end of the paper. Students are encouraged to use the services of the University's Writing Center when preparing materials.

The following website provides information on APA, MLA, and other writing and citation styles that may be required for term papers and the like: <http://www.nu.edu/LIBRARY/ReferenceTools/citations.html>

National University Library:

National University Library supports academic rigor and student academic success by providing access to scholarly books and journals both electronically and in hard copy.

URL: <http://www.nu.edu/library>. Contact the Library: RefDesk@nu.edu
(858) 541-7900 (direct line) 1-866-NU ACCESS x7900 (toll free)

Use the Library Training Tools (on the Library Homepage) for additional help.

- I Incomplete** A grade given at the discretion of the instructor when a student who has completed **at least two-thirds of the course class sessions** and is unable to complete the requirements of the course because of uncontrollable and unforeseen circumstances. The student must convey these circumstances (preferably in writing) to the instructor prior to the final day of the course. If an instructor decides that an "Incomplete" is warranted, the instructor must convey the conditions for removal of the "Incomplete" to the student in writing. A copy must also be placed on file with the Office of the Registrar until the "Incomplete" is removed or the time limit for removal has passed. An "Incomplete" is not assigned when the only way the student could make up the work would be to attend a major portion of the class when next offered. An "I" that is not removed within the stipulated time becomes an "F." No grade points are assigned. The "F" is calculated in the grade point average.
- W Withdrawal** Signifies that a student has withdrawn from a course after beginning the third class session. **Students who wish to withdraw must notify their admissions advisor before the beginning of the sixth class session in the case of graduate courses, or before the seventh class session in the case of undergraduate courses.** Instructors are not authorized to issue a "W" grade.