

**NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE**

COURSE:	PREFIX	NO.	EFFECTIVE DATE	NEXT REVIEW DATE	
	MAT	110	August 2010	August 2011	
TITLE:			CREDITS	CONTACTS	
				CLASS - LAB - TOTAL	
College Algebra			3	3	0 3

PREREQUISITES:

Acceptable placement score or completion of MAT 102 with a grade of "C" or better

DESCRIPTION:

This course includes the following topics: Polynomial, rational, logarithmic, and exponential functions; inequalities; systems of equations and inequalities; matrices; determinants; and solutions to higher degree polynomials.

TEXTBOOK(S) OR ALTERNATIVE:

Algebra and Trigonometry, 4th Edition, by Blitzer.

MATERIALS (specifying those to be purchased by student): The student should purchase textbook, notebook paper, pencils, erasers, graphing paper, and a scientific, graphing hand-held calculator.

COLLATERAL READING:

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, academic dishonesty, etc.):

Academic Dishonesty:

Students are expected to do their own work. Please refer to the NETC Student Code and Grievance Procedure for a definition of academic dishonesty and an outline of the disciplinary action that may result.

Attendance:

Students are expected to attend all scheduled classes and are responsible for all classwork, homework, notes, etc., whether or not they are present. In the event of extenuating circumstances, such as illness, the student is allowed to miss up to 8 hours. The student will be dropped after missing more than 8 hours of the scheduled classes. If an instructor drops a student for excessive absences at any time during the semester, a grade of "F" will be assigned. If the student withdraws from the course, a grade of "W" or "WF" will be assigned as outlined in the college catalog. There

is no such thing as an excused absence! If you exceed the allowed number of absences, you will be dropped.

Tardies:

A student is considered tardy if he/she is not present for roll call, which is taken at the beginning of class. Three tardies constitute one (1) hour of absence.

Make-up Test Procedure:

No make-up tests are given except in extenuating circumstances. The student is responsible for contacting the instructor **prior** to the time the test is scheduled to arrange a meeting to discuss the process of making up the missed test.

Classroom Etiquette:

1. Electronic communication devices (pagers, cell phones, etc.) are not allowed in the classroom. On-call emergency personnel should see the instructor for an exemption.
2. No visible food or drinks are allowed in the classroom.
3. No radios or headphones are allowed in the classroom.

Student ID:

It is mandatory that every student wear his or her student ID at all times. During the first week of classes, the instructor will issue a reminder to wear the ID. This reminder is a warning.

After the first week of classes, instructors are required to dismiss students without ID from class. The student may get his/her ID (or a new one in Student Services for \$3.00) and return to class before the midpoint of the class. If the student cannot get his/her ID and return to class by midpoint, the instructor will record the absence.

DISABILITIES STATEMENT:

Students with disabilities are encouraged to contact the Dean of Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean of Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See College Catalog)

RESOURCES (A-V, persons, tools/equipment):

Computerized instruction on selected topics and video taped lecture materials are available in the Student Success Center. Ask your instructor for details.

COURSE TOPICAL OUTLINE: (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

TENTATIVE COURSE OUTLINE

<u>WEEK</u>	<u>SECTIONS</u>	<u>TOPIC</u>	
1	2.1	Basics of Functions and Their Graphs	
	2.2	More on Functions and Their Graphs	
			TEST 1 _____

COURSE TOPICAL OUTLINE: (Continued)

<u>WEEK</u>	<u>SECTIONS</u>	<u>TOPIC</u>	
2-3	2.5	Transformations of Functions	
	2.6	Combination of Functions; Composite Functions	
	2.7	Inverse Functions	
			TEST 2 _____
4-6	3.1	Quadratic Functions	
	3.2	Polynomial Functions and Their Graphs	
	3.3	Dividing Polynomials	
	3.4	Zeros of Polynomials	
			TEST 3 _____
7-9	3.5	Rational Functions and Their Graphs	
	3.6	Polynomials and Rational Inequalities	
			TEST 4 _____
10-12	4.1	Exponential Functions	

- 4.2 Logarithmic Functions
- 4.3 Properties of Logarithms
- 4.4 Exponential and Logarithmic Equations

TEST 5 _____

- 13-15 8.1 Systems of Linear Equations in Two Variables
- 8.2 Systems of Linear Equations in Three Variables
- 9.5 Determinants and Cramer's Rule
- 8.5 Systems of Inequalities

- 9.3 Matrix Operations

TEST 6 _____

FINAL EXAM

COLLEGE WIDE COMPETENCIES:

Apply mathematical/computational skills to solve problems.

GENERAL EDUCATION OUTCOMES:

Graduates will be able to:

1. use a systematic approach to solving problems.

LEARNING OUTCOMES/OBJECTIVES OF COURSE:

The student will be able to:

1. solve algebraic equations and inequalities
2. evaluate and graph algebraic relations and functions.

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES:

Lectures covering course topics will be supplemented by exercises to be completed outside of class. Emphasis will be placed on problem solving techniques and understanding underlying theory.

EVALUATIVE METHODS TO APPRAISE OBJECTIVES:

Chapter or topical tests and a final exam will be used to compute your grade for MAT 110. The final grade will be 80% of the test average plus 20% of the exam grade. If the instructor decides

not to give a final exam, the student's grade will be the arithmetic average of all test grades and assignments. NO test grades will be dropped under any circumstances.

GRADING SCALE:

The grade point scale that will be used is as follows:

100 - 93 = A

92 - 85 = B

84 - 77 = C

76 - 69 = D

Below 69 = F