

# University of North Texas at Dallas

## Spring 2012 SYLLABUS

<b>MATH 1010 Fundamentals of Algebra (3 Credit Hours)</b>			
<b>Department of</b>	Mathematics and Information Sciences	<b>Division of</b>	Liberal Arts and Sciences
<b>Instructor Name:</b>	Vinod Arya		
<b>Office Location:</b>	FH-226		
<b>Office Phone:</b>	972-338-1375		
<b>Email Address:</b>	Vinod.arya2@unt.edu		
<b>Office Hours:</b>	T 12:00 pm – 2:00 pm; Wed 10:00 am – 2:00 pm, Th 1:30 pm – 2:30 pm		
<b>Lab Hours:</b>			
<b>Class/Lab Times &amp; Location:</b>	MTW 2:30 pm – 3:50 pm; FH-212		
<b>Lab Times &amp; Location:</b>	Th 2:30 pm – 3:50 pm, 1-226		
<b>Course Catalog Description:</b>	Basic algebraic operations, linear equations and inequalities, polynomials, rational expressions, factoring, exponents and radicals, and quadratic equations		
<b>Prerequisites:</b>	The consent of the department		
<b>Co-requisites:</b>	Participation in Mathematics Lab (Required)		
<b>Main Text:</b>	Intermediate Algebra ( <b>with MyMathLab; Code: ARYA47052</b> ), by Sullivan and Struve, 2 <sup>nd</sup> edition, Prentice Hall.		
<b>Recommended Texts and/or References:</b>	<i>Schaum's Outline of Intermediate Algebra, 2<sup>nd</sup> edition, McGraw-Hill, 2010;</i> <i>Schaum's Outline of Elementary Algebra, 3<sup>rd</sup> edition, McGraw-Hill, 2009.</i>		
<b>Access to Learning Resources:</b>	UNT Dallas Library: phone: (972) 780-3625; web: <a href="http://www.unt.edu/unt-dallas/library.htm">http://www.unt.edu/unt-dallas/library.htm</a> UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: <a href="mailto:1012mgr@fhcg.follett.com">1012mgr@fhcg.follett.com</a>		
<b>Course Goals or Overview:</b>	The goal of this course is to provide remedial training on basic and intermediate algebra.		
<b>Learning Objectives/Outcomes:</b>	At the end of this course, the student will		
1	Be able to conduct elementary algebraic operations in correct order.		
2	Be able to conduct elementary operations with fractions.		
3	Be able to use elementary algebraic symbols to form correct mathematical phrases.		
4	Understand the concepts of variables, equations, inequalities, functions and graphs.		
5	Be able to solve linear equations and inequalities.		
6	Be able to solve systems of linear equations and inequalities.		
7	Be able to factor polynomials and use factorization to solve quadratic or higher order equations.		
8	Be able to analyze linear and quadratic functions and their graphs.		
9	Understand the basics of rational functions and radical functions.		

## Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated through UNT e-mail.

	Monday	Wednesday
Week 1	<i>M. L. King Jr. Memorial Day (Jan. 16)</i>	R. Real Numbers and Algebraic Expressions
Week 2	1. Linear Equations and Inequalities	1. Linear Equations and Inequalities
Week 3	1. Linear Equations and Inequalities	1. Linear Equations and Inequalities
Week 4	2. Relations and Functions	2. Relations and Functions
Week 5	2. Relations and Functions	2. Relations and Functions
Week 6	<i>Exam 1</i>	3. Systems of Equations and Inequalities
Week 7	3. Systems of Equations and Inequalities	3. Systems of Equations and Inequalities
Week 8	3. Systems of Equations and Inequalities	4. Polynomials and Polynomial Functions
Week 9	4. Polynomials and Polynomial Functions	4. Polynomials and Polynomial Functions
Week 10	<i>Spring Break (Mar. 19 - 23)</i>	<i>Spring Break (Mar. 19 - 23)</i>
Week 11	<i>Exam 2</i>	7. Quadratic Equations
Week 12	4. Polynomials and Polynomial Functions	5. Rational Functions and Rational Expressions
Week 13	5. Rational Functions and Rational Expressions	5. Rational Functions and Rational Expressions
Week 14	6. Radicals and Rational Exponents	6. Radicals and Rational Exponents
Week 15	<i>Exam 3</i>	7. Quadratic Equations and Functions
Week 16	7. Quadratic Equations and Functions	<i>Review</i>
Week 17	<i>Final Exam: Mon. May 7, 2:00 PM – 4:00 PM.</i>	

## Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

**Exams:** *written tests designed to measure knowledge of presented course material.*

**Assignments:** *written assignments designed to supplement and reinforce course material.*

**Quizzes:** *small-scale written tests designed provide more frequent feedbacks on the students' understanding.*

**Group Projects:** *small-scale assignments designed to promote mathematical communication between peers.*

**Class Participation:** *daily attendance and participation in class discussions.*

**Etc.**

### Grading Matrix

Instrument	Value (points or percentages)	Total
Three Tests	15% each	45%
Homework/Quiz/Project/ Class Participation	40%	40%
Final Exam	15%	15%
<b>Total</b>		<b>100%</b>

### Grade Determination:

- A: 90.0% or better
- B: 80.0% - 90.0%.
- C: 70.0% - 80.0%
- D: 60.0% - 70.0%.
- F: 60.0% or less

## University Policies and Procedures

### **Students with Disabilities (ADA Compliance):**

*The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. For more information, you may visit the Office of Disability Accommodation/Student Development Office, Suite 115 or call Laura Smith at 972-780-3632.*

### **Student Evaluation of Teaching Effectiveness Policy:**

*The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.*

### **Assignment Policy:**

*No late homework assignments will be accepted. A missed home-assignment is worth zero. No makeup tests and quizzes will be given, except for documented emergencies.*

### **Exam Policy:**

*Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).*

### **Academic Integrity:**

*Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of conduct and Academic Dishonesty policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Conduct at [http://www.unt.edu/csrr/student\\_conduct/index.html](http://www.unt.edu/csrr/student_conduct/index.html) for complete provisions of this code.*

### **Bad Weather Policy:**

*On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website [www.unt.edu/dallas](http://www.unt.edu/dallas). Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.*

### **Attendance and Participation Policy:**

*The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent.*

### **Diversity/Tolerance Policy:**

*Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.*

### **Other Policies:**

**Use of cell Phones in the class is prohibited. No Food and Drink is allowed in the class. An Incomplete Grade "I" will be awarded only in exceptional circumstances and per university rules (see catalog). Students are responsible for meeting all university deadlines (registration, fee payment, prerequisite verification, drop deadlines etc.). See university catalog and/or schedule of classes for policies and dates.**