

Revised: Fall 2013

MATH 0300 STUDENT SYLLABUS

Course: MATH 0300 (Beginning Algebra)

PREREQUISITE: *Students are placed in MATH 0300 based on an Accuplacer score of less than 53, or a THEA Math score of less than 230.*

Textbook: *Beginning and Intermediate Algebra*, Fifth Edition, by Elayn Martin-Gay, Pearson Prentice Hall, Upper Saddle River, NJ, 07458 (UHD Custom Edition). **OPTIONAL:** *Math Study Skills*, by Alan Bass, Pearson Education, Inc, 75 Arlington Street, Suite 300, Boston, MA 02116

Why You Are in This Course: Like many students at UHD, your placement test results indicate that your arithmetic and algebra skills are not sufficiently developed for you to pass one of the core college level mathematics courses required of all students at UHD (these core courses are MATH 1301 or MATH 1310). MATH 0300 is a developmental course intended to strengthen and build your mathematical skills up to the college level. Upon completion of this course, you will also need to complete or test out of MATH 1300 before enrolling in a college level math course.

Where to Find Course Resources: The first place to seek assistance and resources is from your instructor, both inside and outside of class. Your instructor will provide the times and locations where he or she is available for office hours to work with you outside of class. Next, students enrolled in MATH 0300 at UHD have access to the Center for Math & Statistics (formerly called the Math Lab) in the Academic Support Center (925-N) where they may obtain additional tutoring with understanding concepts or improving their skills. The Center is staffed with mathematics faculty and student assistants, and offers tutorial help, videotapes, calculators, and computer access on a walk-in basis. The Center maintains extensive hours which are published each semester. You are encouraged to visit the Center throughout the semester whenever you feel you have time to work there, no appointment required. It is also an excellent place to study the textbook and work on homework problems, so that you can receive immediate answers to your questions as necessary. The accompanying online homework component, MyMathLab, at <http://www.coursecompass.com> provides numerous help resources such as chapter pretests, exercise examples, and self-quizzes. The multimedia online library contains section lecture videos, animation examples, PowerPoint slides, test prep videos corresponding to each textbook chapter test, and a multimedia textbook. The CD that comes with text, *The Test Prep Video*, also contains step-by-step video instruction for each question corresponding to the chapter tests in the textbook. A copy of this CD is available in the Center for Math & Statistics (in N925) for use in the lab. The *Martin-Gay's Interactive DVD/CD Lecture Series* is also available for purchase at <http://www.mypearsonstore.com>

Goals/Objectives: At the completion of this course, a student should be able to: (1) Identify different types of real numbers, including natural numbers, whole numbers integers, rationals, and irrationals; (2) Identify, plot, and order numbers on the real number line and determine the absolute value of a real number and interpret its geometric meaning; (3) Define and use exponents and correctly execute the order of operations to simplify real-valued expressions; (4) Identify and utilize the basic properties of real numbers and perform the operations of addition, subtraction, multiplication, and division with real numbers; (5) Solve equations containing integers, fractions, and decimals; (6) Solve equations in one variable utilizing the properties of equality and determine whether a number is a solution to an equation; (7) Recognize identities and equations with no solution; (8) Solve problems involving simplifying, adding, subtracting, multiplying and dividing fractions, and word problems involving direct translation, relationships among unknown quantities, and consecutive integers; (9) Use formulas to solve problems and solve literal equations; (10) Solve percent, percent increase, and percent decrease equations; (11) Solve linear inequalities, state the solution using interval notation, and graph the solution on the real number line; (12) Recognize and interpret the important features of bar and line graphs; (13) Graph ordered pairs and linear equations on a rectangular coordinate system by hand; (14) Recognize the equation of a straight line, identify the intercept(s) of a line, and compute the slope of a line; (15) Solve a system of equations graphically and by the substitution and addition methods; (16) Identify and utilize rules and properties of integer exponents; (17) Identify like terms and simplify algebraic expressions by combining like terms, multiplying with the distributive law, and combining like

powers for integer exponents; (18) Define and perform basic operations with polynomials; (19) Convert numbers between standard notation and scientific notation.

Developmental Education Objectives:

- A) Develop a positive mathematical attitude and success/study skills such as effective use of mathematical textbooks, test preparation and taking strategies, and time management.
- B) Acquire the ability to read, write, listen to, and speak mathematics in order to effectively translate mathematical sentences, phrases, and relationships between two quantities into mathematical statements and algebraic expressions.
- C) Engage in substantial mathematical problem solving, reason appropriately from linear models to draw conclusions, and judge the reasonableness of results.
- D) Utilize multiple-approaches such as numerical, graphical, symbolic, and verbal reasoning to solve mathematical problems.
- E) Prepare students for Intermediate Algebra and develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.

Department Grading Policy: The final exam for this course is comprehensive and counts 1/3 of your course average. Your instructor will provide complete information as to how your course average will be computed. Your final course average will be used assign your final course grade according to the formula shown here.

Note: Since MATH 0300 is considered a pre-college course, this grade will appear on your transcript but will not be calculated into your GPA.

90-100	"A"
80-89	"B"
70-79	"C"
0-69	"IP" [not a passing grade]
The following cases are exceptions: <ul style="list-style-type: none">1. If your final exam score is less than 50, you will receive an "F" or "IP" for the course regardless of your average.2. If you violate the MATH 0300 Attendance Policy (see item below), you will receive an "F" for the course regardless of your average.3. If you are attending class but are not making a genuine effort to pass (as evidenced by not handing in assignments, not participating in class, not seeking help outside of class, etc.), you will receive an "F" for the course regardless of your average.4. You may only request a W for this course if you (a) withdraw from the university, or (b) if you have a compelling reason.	

You cannot receive the grade "I"-Incomplete unless you have a documented personal emergency that prevents you from completing the last fraction of the course, such as the last test and/or the final exam. You must have a passing average based on the work you have already completed to receive an "I."

Excess Course Attempts: In accordance with state law, effective Fall 2004 the University of Houston-Downtown is charging an additional fee for each credit hour for enrollment in a developmental course after 18 hours of developmental work has already been attempted. Once 18 attempted hours of developmental course work has been accumulated, registration in a developmental course will result in the additional charge. An attempt is defined as an enrollment that results in a letter grade (including "S", "U", "IP", and "W"). A developmental course is defined as MATH 0300, MATH 1300, ENG 1300, ENG 130A, and RDG 1300.

Satisfactory Progress Policy: Students are required to demonstrate satisfactory progress toward completing their developmental course requirements. MATH 0300 is a developmental course. See the separate sheet Satisfactory Progress Policy for Developmental Courses for details.

MATH 0300 Attendance Policy: An attendance policy is enforced for this course. See the separate sheet MATH 0300 Attendance Policy for details.

Calculator Policy: Students are not required to purchase calculators and will not be allowed to use them on the final exam. Your instructor will give you more information about any possible use of calculators in your class.

General University Policy: All students are subject to UHD Academic Honesty Policy and to all other university-wide policies and procedures as they are set forth in the UHD University Catalog and Student Handbook.

STATEMENT ON REASONABLE ACCOMMODATIONS: UHD adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. Students with disabilities should be notified to register with Disabled Student Services (in S409) and contact the instructor in a timely manner to arrange for appropriate accommodations. Whenever possible, and in accordance with 504/ADA guidelines, UHD will attempt to provide reasonable academic adjustments/auxiliary aids to students who request and require them. Students may call 713-226-5227 for more assistance.

Using MyMathLab: To supplement what is done in class, your instructor may require an online resource called MyMathLab. In order to use MyMathLab, you must purchase a Student Access Code from the UHD Bookstore (bundled with new textbook or sold separately) or purchase it online at <http://www.coursecompass.com>. If you purchased a MyMathLab code for MATH 0300 last semester, you DO NOT need to purchase a new code this semester. Your account will still be active, but you will need to enroll in a new section. You can use MyMathLab on any computer that has Internet access. If you do not have a computer at home with Internet access, you can log into MyMathLab from a UHD computer, print out the MyMathLab assignment, work through the exercises on paper, and then enter the answers in MyMathLab when you are next on campus. To register with MyMathLab, you will also need a valid email address – use one that you regularly check. You must register with MyMathLab at <http://www.coursecompass.com> only the first time that you use it. (1) The course ID number will be given to you by your instructor. (2) The zip code for UHD is 77002. (3) You will then create a Login Name and Password which you will use to log in whenever you use MyMathLab at <http://www.coursecompass.com>. Make sure to record your exact login name and password for future logins. *Note:* The computers in the Center for Math & Statistics (formerly called the Math Lab) in N925, the Academic Computing Labs (S800, C300, B200), the CMS Lab (S738), and the SI Lab (S405) can be used to access MyMathLab. Some of the features you can access are:

- Complete and submit homework assignments online (if required);
- Check out your MyMathLab homework grades and other course grades in the Gradebook;
- View a complete online version of the textbook and look at multimedia sources such as online video clips that accompany the textbook, and much more.

Be sure to register with MyMathLab during the FIRST WEEK of the semester, so you can begin to use it right away.

See your instructor for more information regarding MyMathLab.

Course Content: The course covers the following sections of the textbook. In some cases, not all pages from a section are covered.

<i>Chapters</i>	<i>Sections</i>
Chapter 1 Review of Real Numbers	1.1 Tips for Success in Mathematics 1.2 Symbols and Sets of Numbers 1.3 Fractions 1.4 Introduction to Variable Expressions and Equations 1.5 Adding Real Numbers 1.6 Subtracting Real Numbers 1.7 Multiplying and Dividing Real Numbers 1.8 Properties of Real Numbers
Chapter 2 Equations, Inequalities, and Problem Solving	2.1 Simplifying Algebraic Expressions 2.2 The Addition and Multiplication Properties of Equality 2.3 Solving Linear Equations 2.4 An Introduction to Problem Solving 2.6 Formulas and Mixture Problem Solving 2.7 Further Problem Solving 2.8 Solving Linear Inequalities (Excluding Compound Inequalities)

Chapter 3 Graphs and Introduction to Functions	3.1 Reading Graphs and the Rectangular Coordinate System 3.2 Graphing Linear Equations 3.3 Intercepts
Chapter 4 Solving Systems of Linear Equations	4.1 Solving Systems of Linear Equations by Graphing 4.2 Solving Systems of Linear Equations by Substitution 4.3 Solving Systems of Linear Equations by Addition 4.5 Systems of Linear Equations and Problem Solving (Optional)
Chapter 5 Exponents and Polynomials	5.1 Exponents 5.2 Polynomial Functions and Adding and Subtracting Polynomials 5.3 Multiplying Polynomials 5.4 Special Products 5.5 Negative Exponents and Scientific Notation 5.6 Dividing Polynomials

Tips for Becoming a Successful College Student:

1. Come to class.
2. Read your book.
3. Do your homework.
4. Listen and ask questions.
5. Contribute to classroom discussions.
6. Interact with your teachers, either face to face or using the phone or email.
7. Form study groups with your classmates.
8. Meet with your advisor.
9. Get involved in campus activities.
10. Share new ideas with your friends and family.

VISIT THE UHD ALGEBRA STUDENT WEB PAGE FOR MORE INFORMATION:

<http://cms.dt.uh.edu/qep/algebra>