

Revised: Fall 2022

MATH 1310 STUDENT SYLLABUS

Course: MATH 1310 (Contemporary Mathematics) [3-3-0]

CATALOG DESCRIPTION: An introduction to contemporary mathematical ideas and problem-solving techniques. Designed for students requiring one college-level mathematics course. This course cannot be applied toward any degree in the Department of Mathematics and Statistics. (MATH 1332)

PREREQUISITE: *A grade of C or better in MATH 0300, or TSIA2 score meeting college readiness in Mathematics, or TSIA2 MATH complete, or TSIA2 MATH exempt. For current TSIA2 College Readiness scores, please see <https://www.uhd.edu/testing/Pages/testing-tsia.aspx>*

AUDIENCE: This is a freshman-level mathematics course, which requires a background consisting of two years of high school mathematics or MATH 0300. The course is primarily intended for majors in liberal arts, social and behavioral sciences.

PURPOSE: This course satisfies the general education core mathematics requirement, elevating the student's mathematical literacy to college-level by introducing contemporary mathematical ideas and problem-solving techniques that demonstrate the broad usefulness and importance of mathematics to modern life.

TEXTBOOK: *Thinking Mathematically, 8th Edition, Author: Blitzer, Robert with MyLab Math, Pearson Education Company, Inc. Boston*

GOALS/OBJECTIVES: At the end of the course, a student should be able to:

1. Apply critical thinking and problem solving strategies to choose and analyze mathematical models to solve problems from real-world settings.
2. Understand the basic definitions of set theory, apply the language and notation of sets by performing operations to combine sets, and use Venn diagrams to solve survey problems.
3. Use logical reasoning to determine the validity of an argument or statement and apply those techniques to solve problems.
4. Interpret, analyze, and graph various representations of data with linear and nonlinear functions and models.
5. Solve problems in mathematics of finance by calculating simple interest, compound interest, present and future value of an annuity.
6. Develop counting techniques utilizing the fundamental principle of counting, permutations, and combinations, and apply those techniques to solve counting problems.
7. Demonstrate an understanding of the fundamentals of probability, and apply probability/counting techniques to solve problems.
8. Define statistics sampling, frequency distributions, measures of central tendency and dispersion to compare statistical data sets.

Where to Find Course Resources: The first place to seek assistance is from your instructor, both inside and outside of class. Your instructor will provide the times and locations he or she is available for office hours to work with you outside of class. Next, students enrolled in MATH 1310 at UHD have access to the Center for Math & Statistics in the Academic Support Center (N925) 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, 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 is 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, MyLab Math, 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.

Department Grading Policy: The final exam for this course is comprehensive, proctored (even for online and hybrid courses), 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 to assign your final course grade according to the standard college formula shown here.

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

Please be aware of the last day to withdraw with a course grade of “W.” This date is published in the semester class schedule. If you do not complete the course requirements and do not officially withdraw, you will receive a course grade of “F.” This is university policy over which your instructor has no control. 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”.

Calculator Policy: Each student is expected to purchase or otherwise have access to a scientific calculator throughout the semester and will be allowed to use a scientific calculator on the final exam. A scientific calculator is one that includes the $!$, nPr , and nCr function keys.

Excess Course Attempts: In accordance with state law, effective Fall 2004 the University of Houston-Downtown is charging an additional fee per semester credit hour for any course that is repeated for the third time, beginning with the Fall 2002 semester. If a course has been previously attempted twice, the third enrollment will result in the additional charge. An attempt is defined as an enrollment that results in any letter grade (including “F” and “W”).

Using MyLab Math: To supplement what is done in class, your instructor will require an online resource called MyLab Math. In order to use MyLab Math, you must purchase a Student Access Code from the UHD Bookstore (bundled with custom textbook or sold separately) or purchase it online at <http://www.mymathlab.com>. If you purchased a MyLab Math code for MATH 1310 for the 6th edition (i.e. you are repeating the class), you will need to purchase a new access code this semester. You will have the option to purchase a one semester access or a one-year access. After assessing MyLab Math for your course, you will have the option to purchase a reduced-cost hardcopy of the textbook.

You can use MyLab Math on any computer that has Internet access. If you do not have a computer at home with Internet access, you can log into MyLab Math from a UHD computer, print out the MyLab Math assignment, work through the exercises on paper, and then enter the answers in MyLab Math when you are next on campus.

To register with MyLab Math, you will also need a valid email address – use one that you regularly check. You must register with MyLab Math at either <http://www.mymathlab.com> or through your course access via UHD Blackboard only the first time that you use it as determined by your instructor. If necessary, you will be asked for the following information: (1) The course ID number will be given to you by your instructor, if needed. (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 MyLab Math at <http://www.mymathlab.com>. Be sure to record your exact login name and password for future logins.

Note: The computers in the Center for Math & Statistics in N925, the Academic Computing Labs (S800, C300, B200), the PLTL (Peer Led Team Learning) Lab (S738), and the SI Lab (S405) can be used to access MyLab Math.

In MyLab Math you can:

- Complete and submit homework assignments online;
- Check out your MyLab Math 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 MyLab Math during the first week of the semester, so you can begin to use it right away. *A free 14-day temporary access is also available during the first two weeks of class.*

Signature Assignment: All students in this course are required to complete a Signature Assignment. See your instructor for details.

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

UNIT CONTENT	SECTION COVERAGE
Chapter 1 – Problem Solving and Critical Thinking	Section 1 Deductive and Inductive Reasoning Section 2 Estimation, Graphs, and Mathematical Models Section 3 Problem Solving
Chapter 2 – Set Theory	Section 1 Basic Set Concepts Section 2 Subsets Section 3 Venn Diagrams and Set Operations Section 5 Survey Problems

Chapter 3 – Logic	Section 1 Statements, Negations, and Quantified Statements Section 2 Compound Statements and Connectives Section 3 Truth Tables for Negation, Conjunction, and Connectives Section 4 Truth Tables for the Conditional and the Biconditional Section 7 Arguments and Truth Tables
Chapter 7 – Functions	Section 1 Graphing and Functions Section 2 Linear Functions and Their Graphs Section 6 Modeling Data: Exponential, Logarithmic, and Quadratic Functions
Chapter 8– Personal Finance	Section 3 Simple Interest Section 4 Compound Interest Section 5 Annuities, Methods of Saving, and Investments
Chapter 11 – Counting Methods and Probability Theory	Section 1 The Fundamental Counting Principle Section 2 Permutations Section 3 Combinations Section 4 Fundamentals of Probability Section 5 Probability-Fundamental Counting Principle, Permutations & Combinations
Chapter 12 – Statistics	Section 1 Sampling, Frequency Distributions, and Graphs Section 2 Measures of Central Tendency Section 3 Measures of Dispersion

GENERAL UNIVERSITY POLICIES: All students are subject to UHD’s 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 complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students with a disability. In accordance with Section 504 and ADA guidelines, UHD strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them.

If you believe that you have a documented disability requiring academic adjustments/auxiliary aids, please contact the Office of Disability Services, One Main St., GSB314, Houston, TX 77002. (Office) 713-221-5078 (Website) www.uhd.edu/disability/ (Email) disabilityservices@uhd.edu

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. Use any tutoring resources that are available.
7. Interact with your teachers, either face to face or using the phone or email.
8. Form study groups with your classmates.
9. Meet with your advisor.
10. Get involved in campus activities.
11. Share new ideas with your friends, family, and fellow UHD students!

VISIT THE UHD ALGEBRA STUDENT WEB PAGE FOR MORE INFORMATION:

<http://cms.uhd.edu/qep/algebra>