

## MATH 1332 Online

### Course Syllabus

## Contemporary Math (MATH 1332) Online



**Credit:** 3 semester credit hours (3 hours lecture)

### Prerequisite/Co-requisite:

- A score of 950 or above on the TSI-Assessment placement test (effective Fall 2013) or a “C” or better in TMTH 0374.
- Complete the Online Orientation and answer yes to 7+ questions on the Online Learner Self-Assessment:  
<http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx>

### Course Description

Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. *This course is time-bound, structured, and online.*

### Student Identification Fees

This online course has no additional fees associated with student identification.

### Required Textbook and Materials

1. MyMathLab Standalone Access Code
  - a. May be purchased online at [www.mymathlab.com](http://www.mymathlab.com)
  - b. May be purchased at a local bookstore:  
ISBN 9780135910269---- 18 Weeks  
ISBN 9780135189962---- 24 Months
2. A basic six-function calculator (+, −, ÷, x, √, %) with a ± key

### Course Objectives

Upon successful completion of this course, students will:

1. Apply the language and notation of sets.
2. Determine the validity of an argument or statement and provide mathematical evidence.
3. Solve problems in mathematics of finance.
4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
5. Interpret and analyze various representations of data.
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

### Core Objectives

1. Critical Thinking Skills: To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

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2. **Communication Skills:** To include effective development, interpretation and expression of ideas through written, oral, and visual communication.
3. **Empirical and Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

### **Course Outline**

- A. The Basic Concepts of Set Theory
  1. Symbols and Terminology
  2. Venn Diagrams and Subsets
  3. Set Operations and Cartesian Products
  4. Surveys and Cardinal Numbers
- B. Introduction to Logic
  1. Statements and Quantifiers
  2. Truth Tables and Equivalent Statements
  3. The Conditional and Circuits
  4. The Conditional and Related Statements
  5. Analyzing Arguments with Truth Tables
- C. Number Theory
  1. Prime and Composite Numbers
  2. Greatest Common Factor and Least Common Multiple
- D. Real Numbers and Their Representation (Optional)
  1. Real Numbers, Order, and Absolute Value
  2. Operations, Properties, and Applications of Real Numbers
  3. Rational Numbers and Decimal Representation
  4. Irrational Numbers and Decimal Representation
- 5. Applications of Decimals and Percents
- E. The Basic Concepts of Algebra
  1. Ratio, Proportion, and Variation
- F. Counting Methods
  1. Using the Fundamental Counting Principle
  3. Using Permutations and Combinations
- G. Probability
  1. Basic Concepts
  2. Events Involving “Not” and “Or”
  3. Conditional Probability; Events Involving “And”
- H. Statistics
  1. Visual Displays of Data
  2. Measures of Central Tendency
- I. Personal Financial Management
  1. The Time Value of Money
  2. Consumer Credit
- J. Voting and Apportionment
  1. The Possibilities of Apportionment

### **Grade Scale**

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

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### **Course Evaluation**

Final grades will be calculated according to the following criteria:

Online Exams (Chapter tests will be taken on MyMathLab using Respondus Lockdown Browser) More information will be given by the instructor.	60%
Course Assignments (including Core Assignment)	40%

### **Course Requirements**

1. The student must purchase all required course materials.
2. The student will be expected to have access to the Internet and a computer with webcam and microphone..
3. The student will logon and access the course a minimum of four times per week.
4. Additional course requirements as defined by the individual course instructor.

### **Course Policies**

1. Cheating of any kind will not be tolerated.
2. Students are responsible for initiating and completing the drop process. Students who stop participating and fail to drop the course will earn an “F” in the course.
3. Additional class policies as defined by the individual course instructor.

### **Technical Requirements**

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:

<http://kb.blackboard.com/pages/viewpage.action?pageId=25368512>. A functional broadband internet connection, such as DSL, cable, 3G, 4G, WiMAX, WiFi, satellite, or other broadband access is necessary to maximize the use of the online technology and resources

### **Disabilities Statement**

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

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**Starfish**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

