# **JumpStart Mathematics (TMTH 0132)**

**Credit:** 1 semester credit hour (1 hour lecture)



**Prerequisite/Co-requisite:** Students scoring 343-349 on the TSI-Assessment placement test (effective Fall 2013).

**Course Description:** A non-course based option preparing students for MATH 1332, Contemporary Mathematics.

# **Required Textbook and Materials**

- 1. MyMathLab Standalone Access Code
  - a. NOTE: Not necessary if code already purchased for MATH 1332
    - i. May be purchased online at www.mymathlab.com
    - ii. May be purchased at a local bookstore: ISBN 032119991X
- 2. A basic 6-function calculator  $(+, -, \div, x, \sqrt{,}\%)$  with  $a \pm key$

# **Course Objectives**

Upon completion of this course, the student will be able to:

- 1. Perform arithmetic operations in the real number system.
- 2. Solve applied problems using arithmetic operations in the real number system.
- 3. Define and apply mean, median, and mode to solve problems.
- 4. Given a relation, define its domain, range, and whether it is a function.

### **Course Outline**

- A. Module 1: Whole Numbers
  - 1. Notation, Order, Rounding
  - 2. Applications and Problem Solving
  - 3. Exponential Notation; Order of Operations
  - 4. Factors; Multiples; Divisibility
  - 5. Prime vs. Composite; Prime Factorization
  - 6. Greatest Common Factor and Least Common Multiple
- B. Module 2: Fraction Notation
  - 1. Notation and Simplifying
  - 2. Multiplication and Division
  - 3. Order; Addition and Subtraction
  - 4. Mixed Numerals
  - 5. Applications and Problem Solving

- 6. Order of Operations
- 7. Simple Probability
- C. Module 3: Decimal Notation
  - 1. Notation; Order
  - 2. Rounding
  - 3. Order of Operations
  - 4. Fraction Notation; Decimal Notation
  - 5. Applications and Problem Solving
- D. Module 4: Percent Notation
  - 1. Ratio and Proportion
  - 2. Percent, Decimal, and Fraction Notation
  - 3. Solving Percent Problems
  - 4. Applications of Percent
- E. Module 5: Statistics
  - 1. Measures of Central Tendency

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Course Syllabus

- F. Module 7: Introduction to Real Numbers and Algebraic Expressions
  - 1. The Real Numbers
  - 2. Addition and Subtraction of Real Numbers
  - 3. Applications Involving the Addition and Subtraction of Real Numbers
  - 4. Multiplication and Division of Real Numbers
  - Applications Involving the Multiplication and Division of Real Numbers

- 6. Order of Operations
- 7. Introduction to Algebra
- 8. Properties of Real Numbers
- 9. Algebraic Expressions
- 10. Simplifying Algebraic Expressions
- G. Module 9: Additional Topics
  - 1. Complex Numbers
  - 2. Introduction to Functions
  - 3. Function Notation

## **Grade Scale**

70 – 100 **Satisfactory** 0 – 69 **Unsatisfactory** 

### **Course Evaluation**

Final grades will be calculated according to the following criteria:

Course Assignments 70% Participation (as defined by instructor) 30%

## **Course Requirements**

- 1. Attendance is mandatory.
- 2. The student must purchase all of the required course materials.
- 3. The student will be expected to have access to the Internet and a computer.
- 4. Additional course requirements as defined by the individual course instructor.

### **Course Policies**

- 1. Cheating of any kind will not be tolerated.
- 2. Additional class policies as defined by the individual course instructor.

### **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.

### **Course Schedule**

- This course is a non-semester length/non-course competency based option.
- It may be offered in a variety of formats.

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Course Syllabus

• Each student will be working at their own self-accelerated pace with the understanding that **all** requirements for the course **must** be completed satisfactorily by the end of the scheduled semester time for this course.

# Contact information varies by 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.