



## Math 1332.088 Quantitative Reasoning

### Course Syllabus: Fall 2018 - ONLINE

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	Online	8:30-9:20	9:30-10:50	12:00-12:50	Online	Everyday
	Appointment	3:00-4:20	3:00-4:20	3:00-4:20	Appointment	

*The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.*

**Catalog Course Description: Math 1332 Contemporary Mathematics (Quantitative Reasoning)** 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. Prerequisite: MATH 0305 or its equivalent or an appropriate placement score.

#### **Required Textbook(s):**

Math in Society by David Lippman, Pierce College Ft. Steilacoom. This text is licensed under a Creative Commons Attribution – Share Alike 3.0 United States License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/3.0/us/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA/

MATH IN SOCIETY ED 2.4

AUTHOR: LIPPMAN

ISBN: 9781479276530

STATUS: REQUIRED

#### **Textbook Options:**

**Research** indicates that students learn more and retain it longer using hard copy text.

**Note:** The NTCC Bookstore link is at [www.ntcc.edu](http://www.ntcc.edu).

#### **Recommended Reading(s):**

None

#### **Student Learning Outcomes:**

Upon successful completion of this course, students will:

- 1332.1 Explain and model the arithmetic operations for whole numbers and integers.
- 1332.2 Explain and model computations with fractions, decimals, ratios, and percentages.
- 1332.3 Describe and demonstrate how factors, multiples, and prime numbers are used to solve problems.
- 1332.4 Apply problem-solving skills to numerical applications.
- 1332.5 Represent and describe relationships among sets using the appropriate mathematical terminology and notation.
- 1332.6 Compare and contrast structures of numeration systems.

### **Core Curriculum Purpose and Objectives:**

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of mathematics focus on quantitative literacy in logic, patterns, and relationships. In addition, these courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

### **College Student Learning Outcomes:**

#### Critical Thinking Skills

**CT.1** Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

#### Communication Skills

**CS.1** Students will effectively develop, interpret and express ideas through written communication.

#### Empirical and Quantitative Skills

**EQS.1** Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form

**EQS.2** Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

**EQS.3** Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

**SCANS Skills:**

N/A

**Course Outline:**

- I. Problem Solving
- II. Voting Theory
- III. Weighted Voting
- IV. Apportionment
- V. Fair Division
- VI. Graph Theory
- VII. Scheduling
- VIII. Growth Models
- IX. Finance
- X. Statistics
- XI. Describing Data
- XII. Probability
- XIII. Sets
- XIV. Historical Counting Systems
- XV. Fractals
- XVI. Cryptography

**Online Delivery:**

This is a distance learning class where students have supplemental activities on blackboard online delivery of instruction. It is identical to classroom courses in terms of learner outcomes, course objectives and instructor expectations. A student desiring to enroll for this course must

possess the following: Access to the internet, an e-mail address, a general knowledge of browser settings, file attachments, uploading and downloading files, word processing packages, the ability to conduct on-line research, learn independently and the ability to use Blackboard discussion board, chat and email.

### **Grading Policy**

Two major 100 point examinations, evenly spaced throughout the semester, will be given and each will be worth 25% of the final grade. The average of a series of special online assignments, quizzes, and homework will be worth 25%. A comprehensive final examination will contribute 25% to the final grade.

2 Major Exams	50%
Special Assignments	25%
Comprehensive Final Exam	25%
TOTAL	100%

### **Assignments:**

Submission of homework problems will be determined on a section-by-section basis. Assignments are subject to change.

### **Other Course Requirements:**

A graphing calculator is highly recommended for this course, but not required. Note: The NTCC Bookstore link is at [www.ntcc.edu](http://www.ntcc.edu)

### **Responsibilities/Expectations:**

Cell phone usage in the classroom will be coordinated by the professor. Students are expected to be respectful to classmates, professor and themselves. Students will be warned when using a phone inappropriately. A student will be removed from class if any disruption continues.

The college's official means of communication is via your campus email address. I will use your campus email address and Blackboard to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

### **NTCC Academic Honesty Statement:**

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

### **Academic Ethics**

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is

unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

**ADA Statement:**

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#).

**Family Educational Rights And Privacy Act (Ferpa):**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

**Other Course Policies:**

Students are expected to be respectful toward classmates and professor at all times!