



Math 1332.021HY Contemporary Math Hybrid

Course Syllabus: Spring 2023 R 1:30pm MS-130

“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”

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Office	Monday	Tuesday	Wednesday	Thursday	Friday	Online
Hours	Online Appointment	8:00 – 10:50 4:00 – 4:50	8:00 – 9:50 1:00 – 3:50	4:00 – 4:50	Online Appointment	Everyday

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to: online through the BlackBoard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC’s website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, BlackBoard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the BlackBoard course site.

Video Recording of Course Activities

Certain portions of this course may be recorded via video conferencing software to assist students in course material review or later viewing by a student who was not able to attend the live session. The recordings will be made available only to students within the course and will cease to be available upon completion of the course. Students may not retain, reproduce, or share recordings.

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.

Prerequisite(s): None.

Student Learning Outcomes:

1332.1 Apply the language and notation of sets.

1332.2 Determine the validity of an argument or statement and provide mathematical evidence.

1332.3 Solve problems in mathematics of finance.

1332.4 Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.

1332.5 Interpret and analyze various representations of data.

1332.6 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.

Evaluation/Grading Policy: Two major 150 point examinations, evenly spaced throughout the semester, will be given and together will be worth 75% of the final grade. The combination of a series of special online assignments, quizzes, and homework will be worth 25%. A – 90%; B – 80%; C – 70%; D – 60%; F-Below 60%.

Required Instructional Materials: MATH IN SOCIETY ED 2.4

AUTHOR: LIPPMAN

Publisher: Openstax

ISBN Number: 9781479276530

Optional Instructional Materials: None

Minimum Technology Requirements: Scientific Calculator

Required Computer Literacy Skills: Access to a computer with internet connection.

Course Structure and Overview: Attendance and participation required.

Communications: All graded work returned the next face to face class meeting after it has been submitted.

Institutional/Course Policy: Cell phone usage will be monitored by the instructor to insure meaningful academic usage. 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/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

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 the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

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.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term): At the time of need instruction will be provided and announced weekly.

Course Outline

- I. Problem Solving: Read pages 1-17; Solve Exercises ($\div 5 - 80$), page 18
Enhancement: Johnny and the Train
Application: Problem Solving Model
- II. Graph Theory: Read pages 117 – 145; Solve Exercises ($\div 5 - 20$), page 146
Enhancement: Konigsberg Bridge Dilemma
Application: Floor Plan Analysis
- III. Growth Models: Read pages 173-192; Solve Exercises ($\div 3 - 24$), page 193
Enhancement: Automobile Stopping Distance
Application: Pandemic "Corona Virus" Covid-19
- IV. Finance: Read pages 197 – 221; Solve Exercises ($\div 5 - 30$), page 222
Enhancement: Penny a Day Doubling Surprise
Application: Saving for Retirement
- V. Statistics: Read pages 227-242; Solve Exercises ($\div 3 - 21$), page 243
Enhancement: Random Number Chart
Application: Type II Diabetes Risk Survey

Midterm Homework and Examination Due March 9th, 2023

- VI. Describing Data: Read pages 247-274; Solve Exercises (1-12), page 275
Enhancement: Presidential Election Bar Graphs
Application: Statistical Measures Worksheet
- VII. Probability: Read pages 279-309; Solve Exercises ($\div 5 - 50$), page 310
Enhancement: M&M Experiment
Application: Deck of Cards

VIII. Sets: Read pages 319-328; Solve Exercises ($\div 5 - 45$), page 329

Enhancement: Fun with Sets

Application: Euler Circle Analysis

IX. Historical Counting Systems: Read pages 333-360; Solve Exercises ($\div 5 - 45$), page 361

Enhancement: Roman Numerals

Application: Binary Systems

X. Logic: Read pages 407-444; Solve Exercises ($\div 5 - 30$), page 445

Enhancement: Tooth Paste Commercials

Application: Deductive Reasoning

Final Homework and Examination Due May 11th, 2023