



Foundations of Mathematical Reasoning – MATH 0404.003

Course Syllabus: Fall 2021

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

Instructor: Karen Andrews

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Office	Monday	Tuesday	Wednesday	Thursday	Online
Hours	8:30 a.m. – 9:30 a.m. 11:00 a.m. – 12:20 p.m.	9:30 a.m. – 11:00 a.m.	8:30 a.m. – 9:30 a.m. 11:00 a.m. – 12:20 p.m.	9:30 a.m. – Noon	Daily

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.

Course Description:

This course surveys a variety of mathematical topics needed to prepare students for college-level statistics. Topics include: numeracy with an emphasis on estimation and fluency with large numbers evaluating expressions and formulas; rates, ratios, and proportions; percentages; solving equations; linear models; data interpretations including graphs and tables; verbal, algebraic and graphical representations of functions; exponential models. Four hours of lecture per week

Prerequisite(s): TSI Incomplete Status with Multiple Measures Placement on TSI Placement Chart

Corequisite(s): 1) EDUC 1300 2) MATH 0200 if TSI Incomplete Status with Multiple Measures Placement as posted on TSI Placement Chart is required

Student Learning Outcomes:

Upon successful completion of this course, students will:

0404.1 Use appropriate symbolic notation and vocabulary to communicate, interpret, and explain mathematical concepts.

0404.2 Define, represent, and perform operations on real numbers, applying numeric reasoning to investigate and describe quantitative relationships and solve real world problems in a variety of contexts.

0404.3 Use algebraic reasoning to solve problems that require ratios, rates, percentages, and proportions in a variety of contexts using multiple representations.

0404.4 Apply algebraic reasoning to manipulate expressions and equations to solve real world problems.

0404.5 Use graphs, tables, and technology to analyze, interpret, and compare data sets.

0404.6 Construct and use mathematical models in verbal, algebraic, graphical, and tabular form to solve problems from a variety of contexts and to make predictions and decisions.

Program 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.

Evaluation/Grading Policy

The grade for this course will be based on the following:

1. Homework – Practice assignments must be completed on time. Homework grades will include homework assignments and occasional quizzes. These will all average together to count for 20% of your final course grade. Note that homework is done online through MyMathLab.
2. Tests will count as 50% of your final course grade. Three tests will be given this semester. Each student is required to take all unit tests. Make-up tests may be allowed if the student contacts the professor before the next class meeting before the test.
3. Final Exam – The final exam will be a comprehensive exam and will count as 25% of your final course grade. A comprehensive final exam is mandatory for all students.

A = 90-100%, B = 80-89%, C = 70-79%, F = 69% or lower.

The percentage break-down is as follows:

Exam 1 - 15%

Exam 2 -15%

Exam 3 - 20%

Homework Assignments - 25%

Comprehensive Final - 25%

Required Instructional Materials:

1. 3-ring binder for this class only.
2. Graphing calculator (TI-84, TI-84 Plus, or similar)
3. Writing materials – pencils, erasers, highlights
4. Basic computer skills to access online resources and information

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Optional Instructional Materials: None

Minimum Technology Requirements:

Graphing calculator (TI-84, TI-84 Plus, or approval by instructor)

Required Computer Literacy Skills:

Basic computer skills to access online resources and information

Communications:

Emails will be responded to within 24 hours during the week and 48 hours on the weekend. The college's official means of communication is via your campus email address. Your instructors will use your campus email 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.

Institutional/Course Policy:

No late work will be accepted unless approved by the instructor. All assignments and exams must be completed to achieve the desired goals of the course.

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.

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.

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 special population 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): See Next Page.

Course Schedule: (Subject to Change)

	Assignment	Due Date
Week 1 – Aug. 23 – Aug. 29	Introductions / Activity	Aug. 29
Week 2 – Aug. 30 – Sept. 5	1.2 / 1.3	Sept. 5
Week 3 – Sept. 6 – Sept. 12	1.4	Sept. 12
Week 4 – Sept. 13 – Sept. 19	2.4 / 2.5/ 2.6	Sept. 19
Week 5 – Sept. 20 – Sept. 26	Review / Exam 1	Sept. 26
Week 6 – Sept. 27 – Oct. 3	Appendix D	Oct. 3
Week 7 – Oct. 4 – Oct. 10	3.1 / 3.2	Oct. 10
Week 8 – Oct. 11 – Oct. 17	Review / Exam 2	Oct. 17
Week 9 – Oct. 18 – Oct. 24	3.3 / 3.4	Oct. 24
Week 10 – Oct. 25 – Oct. 31	4.5 / R.4	Oct. 31
Week 11 – Nov. 1 – Nov. 7	7.1 / 7.4	Nov. 7
Week 12 – Nov. 8 – Nov. 14	Review / Exam 3	Nov. 14
Week 13 – Nov. 15 – Nov. 21	8.1	Nov. 21
Week 14 – Nov. 22 – Nov. 28	Activity / Worksheet	Nov. 28
Week 15 – Nov. 29 – Dec. 5	Review / Final Exam	Dec. 5
Week 16 – Dec. 6 – Dec. 9	Final Exam	Dec. 7