

Foundations of Mathematical Reasoning – MATH 0404.004 TR

Course Syllabus: Fall 2020

"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	9am – 5 pm					

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: Lecture/Lab/Clinical: 3 hours and 40 minutes of lecture each week.

Co-requisite: Course Description: MATH 0404 surveys a variety of mathematical topics needed to prepare students for a gateway college-level mathematics course. 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. No college credit.

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:

0404.1 Develop number sense and the ability to apply concepts of numeracy to investigate and describe quantitative relationships and solve real-world problems in a variety of contexts.

0404.2 Use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.

0404.3 Transition from specific and numeric reasoning to general and abstract reasoning using the language and structure of algebra to investigate, represent, and solve problems.

0404.4 Understand and critically evaluate statements that appear in the popular media (especially in presenting medical information) involving risk and arguments based on probability.

0404.5 Understand, interpret, and make decisions based on financial information commonly presented to consumers.

0404.6 Understand that quantitative information presented in the media and by other entities can sometimes be useful and sometimes by misleading.

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.

Required Textbook(s): FMR Curricular Materials Version 2.0. Materials provided for state colleges and universities (for Texas). Copyrighted 2016.

Publisher: UT Dana Center, University of Texas at Austin

ISBN Number: 978-0-13-446748-1

Required Supplies:

- 1. NMP loose leaf book Math 0404 Foundations Course
- 2. 3-ring binder for this class only
- 3. Graphing calculator (TI-84, TI-84 Plus, or similar)
- 4. Writing materials Pencils, eraser, highlighters
- 5. Basic computer skills to access online resources and information

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, occasional notebook checks, and occasional quizzes. These will all average together to count for 25% of your final course grade. Note that homework is done online through MyMathLab.

Notebook – Chronological order of work completed. A Notebook Check will happen occasionally as announced to help monitor student learning. Late work will be accepted.

- 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%, NC (No Credit) = 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%

Student Responsibilities/Expectations:

All students are expected to be present and on time for every class meeting. If you are diligent about attendance and promptness, the following points will be added to your total points in homework assignments:

Absences/Tardies	Points Added
0	50
1	40

2	30
3	20
4	10

There will be difference between excused and unexcused absences. If it *is* necessary for you to miss a class, it is **your** responsibility to contact me or another student **before** the next class. Work that is assigned during a missed class is still due for you, too.

Classroom Etiquette:

Two things are critical to our class: **First**, that your attention is on the topic in class and **second**, that your show the appropriate respect to your classmates. Therefore, please do not do the following while in class: talk/text on cell phones, talk about non- mathematical topics, come late to class, eat during class, use tobacco products during class, sleep, and/or talk while the instructor is talking.

Course Communications: All email communications with students will be via the student's NTCC email account. Emails will be responded to within 24 hours during the week and 48 hours on the weekend. 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.

Course Structure and Overview: This is a 16-week online course that meets parallel to the corequisite courses, Foundations of Mathematical Reasoning (MATH 0200) and Learning Frameworks (EDUC 1300). Class participation is replicated by the expectation that the student will complete working problems in the Foundations course notebook that involve the analytical skills need to apply the mathematical and statistical principles taught in MATH 0404. Students are required to complete online homework, and over the course of the semester, three exams and a final exam. It is very important students complete the assigned tasks on time and fully participate in the learning activities and assignments. A participation grade will be issued weekly, based on the percentage of on-time submissions for the week's assignments.

Institutional/Course Policy: Late work will be accepted. However, a participation grade will be issued weekly, based on the percentage of on-time submissions for the week's assignments. 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 (<u>http://www.ntcc.edu/</u>) 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 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 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):