Math0404.001 – Foundations of Mathematical Reasoning F2F

Course Syllabus: Fall 2021

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

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	9:15am to 9:30am		9:15am to 9:30am			By appointment

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: 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 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, occasional notebook checks, and occasional quizzes. These will all average together to count for 25% of your final grade. **Note that homework is done through MyMathLab and some of the quizzes will be on Blackboard.**
Notebook – Chronological order of work completed. A notebook check will happen occasionally as announced to help monitor student learning.
No 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 for 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%

Grades will be posted to the Blackboard gradebook.

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, highlighters
4) Basic computer skills to access online resources and information.

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Optional Instructional Materials: None

Minimum Technology Requirements:

1) Graphing calculator (TI-84, TI-84 Plus, or similar)
2) Device to connect to the internet to access online resources and information.

Required Computer Literacy Skills: Ability to navigate the NTCC webpage, Blackboard, and MyMathLab.

Course Structure and Overview: You are expected to be in class face-to-face each class meeting. You should bring your book, calculator, and something to write with each class day.

Homework will be completed on MyMathLab each week. It will cover the information from class. You are expected to complete your work on time. Your quizzes will be on Blackboard and will be due by 6pm on class day.

Communications: All official written communications with students will be via the student's NTCC email account. Quick reminders about quizzes, exams, etc. may be sent via Remind app. Text Remind: Enter this number "81010" and text this message: "@math0404f" to add yourself to the Remind group. I will respond to emails during the week within 24 hours. Communications sent over the weekend will be answered by Monday afternoon.

Institutional/Course Policy: Students are expected to attend all classes to be successful in MATH 0404. Students seeking to withdrawal from the course will be directed to the appropriate student services or academic advisor.
While in class, you are expected to be pay attention and be present in class.
Being present in class looks like:

1) distractions are put away including cell phones
2) your attention is on the lecture or task at hand
3) you brought the necessary instructional items to class
4) you remain in class for the full class time
5) you participate as needed in each activity

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 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):

Course Schedule: (Subject to Change)

Weeks	**Topics**	**Assignments**	**Due Dates** (Due by 11:59pm Central Time)
Week 1: 8/23/2021	Introductions/Math Treasure Hunt	Math Treasure Hunt	8/29/2021
Week 2: 8/30/2021	Mathematical Symbols and Sets Variable Expressions and Equations	1.2/1.3	9/5/2021
Week 3: 9/6/2021	Operations on Real Numbers Square Roots	1.4	9/12/2021
Week 4: 9/13/2021	Introduction to Problem Solving Precents and Finance	2.4/2.5	9/19/2021

Week 5: 9/20/2021	Mathematical Symbols and Sets Variable Expressions and Equations Operations on Real Numbers Square Roots Introduction to Problem Solving Percents and Finance	Exam 1	9/26/2021
Week 6: 9/27/2021	Proportions Problem Solving	Appendix D	10/3/2021
Week 7: 10/4/2021	Graphing Linear Equations Determining and calculating intercepts and slope	3.1/3.2	10/10/2021
Week 8: 10/11/2021	All Exam 1 topics plus Proportions Problem Solving Graphing Linear Equations Determining and calculating intercepts and slope	Exam 2	10/17/2021

Week 9: 10/18/2021	Writing Equations of Lines Functions: Regression/Domain/Range	3.3/3.4	10/24/2021
Week 10: 10/25/2021	Negative Exponents Scientific Notation Reading and Creating Charts and Graphs	4.5/R.4	10/31/2021
Week 11: 11/1/2021	Counting Principle of Probability Introduction to Probability	7.1/7.4	11/7/2021
Week 12: 11/8/2021	All Exam 1 and 2 topics plus Writing Equations of Lines Functions: Regression/Domain/Range Negative Exponents Scientific Notation Reading and Creating Charts and Graphs Counting Principle of Probability Introduction to Probability	Exam 3	11/14/2021
Week 13: 11/15/2021	Measures of Central Tendency: Mean, Median, Mode ...	8.1	11/21/2021
Week 14: 11/22/2021	Introduction to Statistical Thinking	Blackboard Assignment	11/28/2021
Week 15: 11/29/2021		Review for Final Exam	12/5/2021
Week 16: 12/6/2021	All semester topics	Final Exam	12/9/2021 5:00 pm