



Math 0404 088 – Foundations of Mathematical Reasoning ONLINE

Course Syllabus: Fall 2020

“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
	Online Only	Online Only	Online Only	Online Only	Online Only	8 am to 9 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: 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 be 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.

Evaluation/Grading Policy: The grade for this course will be based on the following:

1. Homework – Each practice assignment will be given a due date, though *it will remain open for either completion or additional attempts after that due date*. Homework grades will include MyMathLab homework pre-assignments and assignments. These will all average together to count for 25% of your final course grade. Note that homework is completed online through MyMathLab.

2. Participation – Participation in this online course is considered to be the on-time completion of posted assignments. For example, if there are 8 online assignments posted with a common due date and they are all completed by that date, you will receive 100 as a participation grade for that week. If 6 of the 8 online assignments are completed by the due date, you will receive 75 ($6/8 = 75\%$) as a participation grade for that week. The overall participation average will count as 10% of your final course grade. This is intended as an incentive to stay on schedule for completion of the course.

3. Exams will count as 40% of your final course grade. Three tests will be given this semester. Each student is required to take all unit tests. **Due dates for Unit tests within MyMathLab are non-negotiable.** No make up tests are allowed, however the Final Exam grade can replace a missing or low test grade.

4. 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.

The percentage break-down is as follows:

Homework Assignments	25%
Participation	10%
Exams	40%
Comprehensive Final	25%

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

Required Instructional Materials:

- 1) NMP loose leaf book – Math 0404 Textbook
Foundations of Mathematical Reasoning Curricular Materials Version 2.0. Materials provided for state colleges and universities (for Texas). Copyrighted 2016.
Note: The NTCC Bookstore link is at www.ntcc.edu
- 2) Access to MyMathLab (Inclusive Access)
- 3) Graphing calculator (TI-84, TI-84 Plus, or similar)
- 4) Writing materials – Pencils, eraser, highlighters

Publisher: UT Dana Center, University of Texas at Austin

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

Course Structure and Overview: This is a 16-week face-to-face course that meets parallel to the co-requisite courses, Foundations of Mathematical Reasoning (MATH 0404) and Learning Frameworks (EDUC 1300). A typical class involves general participation by all students in discussions and working problems that involve the analytical skills need to apply the mathematical and statistical principles taught in MATH 0404. . Students are required to complete online homework in addition to quizzes, and over the course of the semester, three exams and a final exam. It is very important students attend class 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.

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. For quicker response and to enable communication between students, this course utilizes the Remind app. An invitation will be sent to the mobile phone number submitted during registration. If this has changed, alternate signup information will be available in the "START HERE" folder.

Institutional/Course Policy: Late work is accepted for this course, though the late submission of an assignment will impact the Participation grade for the week. All exams must be completed on time 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 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)

<u>Weeks</u>	<u>Topics</u>	<u>Assignments</u>	<u>Due Dates</u> (Due by 11:59pm CST)
Week 1: 8/24/20 – 8/30/20	Quantitative Reasoning	MyMathLab Lessons 1A, 1B, 1C, 1D MyMathLab Preview Lessons 2A, 2B MyMathLab Lessons 2A, 2B	8/30/2020
Week 2: 8/31/20 – 9/6/20	Large Numbers Scientific Notation	MyMathLab Preview Lessons 2C, 2D, 3A, 3B, 3C, 3D MyMathLab Lessons 2C, 2D, 3A, 3C, 3D 3B - "Treasure Hunt" (<i>found and submitted on Blackboard</i>)	9/6/2020
Week 3: 9/7/20 – 9/13/20	Order of Operations Algebraic Reasoning	MyMathLab Preview Lessons 3E, 4A, 4B, 4C, 4D MyMathLab Lessons 3E, 4A, 4B, 4C, 4D	9/13/2020
Week 4: 9/14/20-9/20/20	Data and Distributions	Test #1 - Lessons 1-4 MyMathLab Preview Lessons 5A, 5B, 5C, 5D MyMathLab Lessons 5A, 5B, 5C, 5D	9/20/2020
Week 5: 9/21/20 – 9/27/20	Statistical Calculations and Displays	MyMathLab Preview Lessons 6A, 6B, 6C, 6D, 7A, 7B MyMathLab Lessons 6A, 6B, 6C, 6D, 7A, 7B	9/27/2020
Week 6: 9/28/20 – 10/4/20	Credit and Taxes Risk Management	MyMathLab Preview Lessons 7C, 7D, 8A, 8B, 8C, 8D MyMathLab Lessons 7C, 7D, 8A, 8B, 8C, 8D	10/4/2020
Week 7: 10/5/20 – 10/11/20	Comparing Datasets	MyMathLab Preview Lessons 9A, 9B, 9C, 9D, 10A, 10B MyMathLab Lessons 9A, 9B, 9C, 9D, 10A, 10B	10/11/2020
Week 8: 10/12/20 – 10/18/20	Geometry	Test #2, Lessons 1-8 MyMathLab Preview Lessons 10C, 10D, 11A, 11B MyMathLab Lessons 10C, 10D, 11A, 11B	10/18/2020

Week 9: 10/19/20 – 10/25/20	Geometry Unit Rates	MyMathLab Preview Lessons 11C, 12A, 12B, 12C, 12D MyMathLab Lessons 11C, 12A, 12B, 12C, 12D	10/25/2020
Week 10: 10/26/20 – 11/1/20	Analyzing Changes	MyMathLab Preview Lessons 13A, 13B, 13C, 13D, 14A, 14B MyMathLab Lessons 13A, 13B, 13C, 13D, 14A, 14B	11/1/2020
Week 11: 11/2/20 – 11/8/20	Math in the Real World	MyMathLab Preview Lessons 14C, 14D, 15A, 15B MyMathLab Lessons 14C, 14D, 15A, 15B	11/8/2020
Week 12: 11/9/20 – 11/15/20	Solving Equations	MyMathLab Preview Lessons 15C, 15D, 15E, 16A, 16B MyMathLab Lessons 15C, 15D, 15E, 16A, 16B	11/15/2020
Week 13: 11/16/20 – 11/22/20		Test #3 Lessons 1-14	11/22/2020
Week 14: 11/23/20 – 11/29/20	Rates of Change Graphing	MyMathLab Preview Lessons 16C, 16D, 16E, 17A, 17B, 17C, 17D MyMathLab Lessons 16C, 16D, 16E, 17A, 17B, 17C, 17D	11/29/2020
Week 15: 11/30/20 -12/4/20	Assignment Make-up Opportunity	Last opportunity to complete any missing Preview Lessons or Lessons; No Participation grades given	Friday 12/4/2020
Week 16: 12/5/20 – 12/10/20		Final Exam	Thursday 12/10/2020 5 PM