MATH 1350.881 Mathematics for Teachers I, Online
Course Syllabus: Summer 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	Online	Online	Online		Professor checks email & Remind texts multiple times 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 is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking. 3 credit hours

Prerequisite(s): MATH 1314 with a grade of "C" or better

Student Learning Outcomes:
1350.1 Apply problem solving skills to numerical applications.

1350.2 Perform and model addition, subtraction, multiplication, and division on sets, subsets, and various number sets.
1350.3 Explore patterns and sequences as inductive and intuitive methods for problem solving.

1350.4 Apply and use properties of the real number system.

1350.5   Solve applications using fractions, decimals, percents, ratios, and proportions.

Core Curriculum Purpose and Objectives:

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of mathematics focus on quantitative literacy in logic, patterns, and relationships. In addition, these courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

College Student Learning Outcomes:

<u>Critical Thinking Skills</u>

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.

<u>Communication Skills</u>

CS.1 Students will effectively develop, interpret and express ideas through written communication.

<u>Empirical and Quantitative Skills</u>

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.

Evaluations/Grading Policy:
Three major 100 point exams aminations will be given, which will count for 45% of your total grade (worth 15% each). If an exam is missed or failed, the highest possible make-up grade is a 70 (with instructor notification prior to the exam missed). All exams will be online and taken at home.

The average of a series of homework assignments will be worth 35% of the total grade (all homework is on MyMathLab). All homework due dates are posted on MyMathLab in the Course Calendar at the top of the MyMathLab Homepage. Homework is due on the due date…no exceptions.

A comprehensive final examination will contribute 20% to the final grade, and the final must be proctored. <u>We will discuss proctoring options closer to the final exam time</u>.

Breakdown of grading:

3 Exams	45% (15% each)
Final Exam (must be proctored – see above)	20%
Online Homework (MyMathLab)	35%

TOTAL	100%

"A"	90%
"B"	80%
"C"	70%
"D"	60%
"F"	Below 60%

Required Instructional Materials: Long, DeTemple, Millman (2015). Mathematical Reasoning for Elementary Teachers, 7th Edition. The Loose-leaf copy of the book is cheaper and is available in the NTCC bookstore.

Publisher: Pearson, Boston, MA

ISBN Number:
978-0-321-91474-3   LONG/MATHEMATICAL REASONING BINDER TEXT W/MYMATHLAB
Both the loose-leaf textbook and the MyMathLab code will work for BOTH 1350 & 1351. You only have to purchase them once.

Optional Instructional Materials: None

Minimum Technology Requirements: Students should have a computer at home that is Internet accessible. It is recommended that students have a graphing calculator. The TI-84 is preferred, but other models may be approved by the instructor. You will be using this calculator for both courses.

Required Computer Literacy Skills: Students should have the ability to navigate through a website, use a chat room, post remarks to a discussion board, and email. They must also be able to navigate Blackboard to access posted materials and MyMathLab assignments.

Course Structure and Overview:
This is a 5 week online summer course where students are required to access graded activities on MyMathLab via the Blackboard Learning Management System. Students are required to complete online homework assignments, three exams and a final exam. It is very important for students to keep up with course materials and assignments since this is a very fast-paced, college-level course. Students are expected to watch posted instructional videos, read the course textbook, and complete online assignments located in MyMathLab, by the due dates.

Course Outline:
All problems assigned to each section are located in the Homework tab in MyMathLab. Dates for each section are located in your MyMathLab Calendar at the end of this syllabus.
1.1   An Introduction to Problem Solving
1.2   Polya's Problem-Solving Principles
1.3   More Problem-Solving Strategies
1.4   Algebra as a Problem-Solving Strategy
1.5   Additional Problem-Solving Strategies
1.6   Reasoning Mathematically
2.1   Sets and Operations on Sets
2.2   Sets, Counting, and the Whole Numbers
2.3   Addition and Subtraction of Whole Numbers
2.4   Multiplication and Division of Whole Numbers
EXAM 1(Chapters 1 & 2)
3.2   Algorithms for Adding and Subtracting Whole Numbers
3.3   Algorithms for Multiplication and Division of Whole Numbers
3.4   Mental Arithmetic and Estimation
4.1   Divisibility of Natural Numbers
4.2   Tests for Divisibility
4.3   Greatest Common Divisors and Least Common Multiples

5.1   Representation of Integers
5.2   Addition and Subtraction of Integers
5.3   Multiplication and Division of Integers
EXAM 2 (Chapters 3, 4, & 5)
6.1   The Basic Concepts of Fractions and Rational Numbers
6.2   Addition and Subtraction of Fractions
6.3   Multiplication and Division of Fractions
7.1   Decimals and Real Numbers
7.2   Computations with Decimals
7.3   Proportional Reasoning
7.4   Percent
EXAM 3 (Chapters 6 & 7)

*__COMPREHENSIVE FINAL EXAM (Over all chapters) **MUST BE PROCTORED (see notes above)__*

Communications:
Emails will be responded to within 24 hours. Students are expected to abide by Netiquette rules when communicating online. See this link for details:
https://coursedesign.colostate.edu/obj/corerulesnet.html.

The college's official means of communication is via your campus email address. Your instructor will use your campus email, Blackboard, and REMIND texting to communicate with you. You need to check these often throughout the week in case your instructor sends out new information. Also, make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy:
Since this is an online class, students must be self-motivated to keep up with the due dates, turn in assignments ON TIME, and take Exams as scheduled. Students need to check their email accounts daily AND log in daily to MyMathLab to make sure they receive all communications from the professor.

No late work will be accepted without prior approval by the instructor. It is the student's responsibility to check Blackboard and their NTCC email account for important information/announcements regarding the course. Students should be working on course material via Blackboard and MyMathLab every day. Do not wait until the last minute to complete and submit assignments in case of technology issues.

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 population's 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: All assignments/exams are on MyMathLab (*note* instructor reserves the right to make adjustments to this timeline at any point in the term).

			Assignment Name:	Due Date:	
			Orientation	06/09/20	
			CHAPTER 1 HOMEWORK	06/11/20	
			CHAPTER 2 HOMEWORK	06/14/20	
			REVIEW for EXAM #1	06/18/20	
	***	▲	*EXAM #1 (Chapters 1 & 2*)	*06/18/20 to 06/19/20*	Opens at 8 am on 1st day; closes at 12:00 am on 2nd day
			CHAPTER 3 HOMEWORK	06/21/20	
			CHAPTER 4 HOMEWORK	06/23/20	
			CHAPTER 5 HOMEWORK	06/26/20	
			Review for EXAM #2 (over Chapters 3, 4, &5)	06/29/20	
	***		*EXAM #2 (Chapters 3, 4, & 5)*	*06/29/20 to 06/30/20*	Opens at 8 am on 1st day;

					closes at midnight on 2nd day
		CHAPTER 6 HOMEWORK		07/02/20	
		CHAPTER 7 HOMEWORK		07/05/20	
		REVIEW for EXAM #3 (Chapters 6 & 7)		07/07/20	
	***	*EXAM #3 (Chapters 6 & 7)*		*07/07/20 to 07/08/20*	Opens at 8 am on 1st day; closes at midnight on 2nd day
		REVIEW for FINAL Exam (Chapters 1 - 7)		07/10/20	
	***	*FINAL EXAM!!!*		*July 9-10*	