



# Math 1351 – Mathematics for Teachers II

## Course Syllabus: Spring 2019

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

### Dr. Leah Reagan

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	10:00 – 11:00 1:30 – 3:30	10:00 – 11:00 2:30 – 4:30	10:00 – 11:00 1:30 – 3:30	10:00 – 11:00	Online	Professor checks email multiple times daily.

*The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.*

**Catalog Course Description (include prerequisites):** Three hours credit. Concepts of geometry, probability, and statistics, as well as applications of the properties of real numbers to concepts of measurement with emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4 through 8) teacher certification. Pre-requisite: MATH 1314 College Algebra or the equivalent

### Required Textbook(s):

Long, DeTemple, Millman (2015). Mathematical Reasoning for Elementary Teachers, 7th Edition.

You are required to purchase the loose-leaf textook (cheaper) and the MyMathLab access code (They are sold as a money-saving bundle in the NTCC bookstore).

ISBN:

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.

Note: The NTCC Bookstore link is [www.ntcc.edu](http://www.ntcc.edu)

### Recommended Reading(s):

None

### Student Learning Outcomes:

The student will be able to:

1. Recognize, name, compare, and measure two- and three-dimensional shapes.
2. Determine congruent and similar objects through geometric constructions.
3. Use Geometric concepts to illustrate symmetries, size transformations, and tessellations.
4. Use probabilities, simulations, and counting techniques to solve problems and analyze games.

5. Select and use appropriate statistical methods to analyze data and reason statistically.

**Exemplary Educational Objectives:**

N/A

**SCANS Skills:**

N/A

**Lectures & Discussions:**

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 to MyMathLab to make sure they receive all communications from the Professor.

**Evaluation/Grading Policy:**

Three major 100 point examinations 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). The 2<sup>nd</sup> exam and the Final Exam MUST BE TAKEN IN PERSON IN THE NTCC TESTING CENTER. If you do not live near NTCC, you may take your exam from any testing facility that is near you (student is responsible for getting testing site information to me and also for paying any fees the alternate testing facility may charge).

The average of a series of homework assignments will be worth 25% of the total grade (all homework is on MyMathLab. All homework due dates are posted on MyMathLab. Homework is due on the due date...no exceptions.

Quizzes (over each chapter) will count for 10% of your overall average.

A comprehensive final examination will contribute 20% to the final grade, and the final must be taken in the testing center of the NTCC campus. If you do not live near NTCC, you may take your exam from a nearby testing facility (student responsible for getting testing site information to me and also for paying any fees the facility may charge).

**Tests/Exams:**

3 Exams (2<sup>nd</sup> exam must be taken on campus) 45% (15% each)

Final Exam (must be taken on campus) 20%

Online Assignments (MyMathLab) 25%

Quizzes (MyMathLab) 10%

TOTAL -----  
100%

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

**Assignments:**

All problems assigned to each section are located in the Homework tab in MyMathLab. Dates for each section are located in your MyMathLab Calendar.

- I. Probability
  - A. The Basics of Probability
  - B. Applications of Counting Principles to Probability
  - C. Permutations and Combinations
  - D. Odds, Expected Values, Geometric Probability, and Simulations
  
- II. Statistics
  - A. Organizing and Representing Data
  - B. Measuring the Center and Variation of Data
  - C. Statistical Inference
  
- III. Congruence, Constructions, and Similarity
  - A. Congruent Triangles
  - B. Constructing Geometric Figures
  - C. Similar Triangles
  - D. Networks
  
- IV. Transformations, Symmetries, and Tilings
  - A. Rigid Motions and Similarity Transformations
  - B. Patterns and Symmetries
  - C. Tilings and Escher-like Designs
  
- V. Measurement
  - A. The Measurement Process
  - B. Area and Perimeter
  - C. The Pythagorean Theorem
  - D. Volume
  - E. Surface Area
  
- VI. Geometric Figures
  - A. Figures in the Plane
  - B. Curves and Polygons in the Plane
  - C. Figures in Space

**Other Course Requirements:**

Students should have a computer that is Internet accessible, and they should have the ability to navigate through a website, use a chat room, post remarks to a discussion board, and email.

**Student Responsibilities/Expectations:**

Students in the online section of this class must submit weekly assignments on the due dates to remain enrolled in the class. The instructor reserves the right to administratively drop a student who goes beyond two weeks without turning in online assignments (unless the instructor is notified and given a valid reason for late assignments).

**NTCC Academic Honesty Statement:**

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

**Academic Ethics**

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

**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 arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the NTCC Catalog or Student Handbook.

**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.

**Other Course Policies:**

The college's official means of communication is via your campus email address. I will use your campus email address 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.

**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 Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the NTCC website - Special Populations.

