

## College Algebra - Math 1314.088 (Online)

Course Syllabus: Spring 2020

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

**Instructor: Karen Russell** 

Office: Online

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| Office Hours | Monday        | Tuesday       | Wednesday     | Thursday      | Friday        | Online        |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
|              | Online 4:30 – |
|              | 5:30 p.m.     |

# 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 covers the development of the complex number system, solutions of quadratic equations and systems involving quadratics, relations, functions, inverses, ratio, proportion, and variation, theory of equations, progressions, matrices, exponential and logarithmic functions, permutations, combinations, and probability as time permits.

**Prerequisite(s):** Appropriate test score / TSI placement with multiple measures

## **Student Learning Outcomes:**

Upon successful completion of this course, students will

- 1314.1 Demonstrate understanding and knowledge of properties of functions, which include domain and range, operations, compositions, and inverses.
- 1314.2 Recognize and apply polynomial, rational, radical, exponential, and logarithmic functions and solve related equations.
- 1314.3 Apply graphing techniques of transformations and combinations to common algebraic functions.
- 1314.4 Use linear mathematical models to problem-solve.
- 1314.5 Evaluate all roots of higher degree polynomial functions.
- 1314.6 Recognize, solve and apply systems of linear equations using matrices.

## **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:**

## **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:**

| Exam 1                 | 10%         |
|------------------------|-------------|
| Exam 2 (Proctored)     | 15%         |
| Exam 3                 | 10%         |
| Exam 4 (Proctored)     | 15%         |
| Homework Assignments   | 20 %        |
| Quizzes                | 10%         |
| Final Exam (Proctored) | <u>20 %</u> |
| TOTAL                  | 100 %       |

<sup>&</sup>quot;A" - 90%

<sup>&</sup>quot;B" - 80%

<sup>&</sup>quot;C" - 70%

<sup>&</sup>quot;D" - 60%

<sup>&</sup>quot;F" - Below 60%

## **Assignments:**

- All concept mastery assignments, homework assignments and quizzes will be found on MyMathLab (MML), which is accessed through Blackboard.
- Due dates for all assignments and quizzes can be found on the calendar at the top of the MML course home page. You will need to scroll through the calendar to see all due dates. As a general rule, though, <u>most</u> homework and quiz assignments for Math 1314 will be due on Sundays at 11:59 p.m.
- Homework problems have an unlimited number of attempts. You may re-work the problem as many times as necessary to learn the concept and get the problem correct. However, be aware that the computer will generate a new problem for each attempt.
- Quiz assignments have a limit of three attempts.
- The last grade earned for each concept mastery, homework assignment, or quiz will be posted for the assignment's final grade.
- There are no make-up assignments or quizzes. All assignments and quizzes must be submitted by the deadline.
- Any assignment or quiz not submitted will receive a grade of zero.

#### **Exams:**

- All exams are online on MML, Please note: some of our exams must be proctored as dictated by departmental policy. Each exam will be available on MML at scheduled times. Please check Blackboard and your MML calendar for the dates. Some exams must be taken in the Testing Center to meet the departmental proctoring policy. See below for information on those exams.
- Due dates for all exams can be found on the calendar at the top of the MML course home page. Tentative due dates can also be found on Blackboard. You will need to scroll through the MML calendar to see all due dates.
- Only one attempt per question is allowed on exams.
- One make-up exam may be allowed if requested for one of the following exams: Exam 1, Exam 2, or Exam 3 during the semester if you miss it or would like to try again. However, a makeup exam must be proctored. There is no make-up for Exam 4 or the Final Exam.
- Any exam not submitted will receive a grade of zero.
- The second exam, fourth exam, and comprehensive final exam must be proctored in an approved Testing Center. For proctored exams, students will need to inform the instructor, prior to the exam, of the Testing Center they wish to use.
  - o **Proctored Exams**: There are two ways to take a proctored exam:
    - 1) Testing Center on NTCC Main Campus—students may take a proctored exam at this location. It is the student's responsibility to make sure that he/she is aware of the Testing Center Hours of Operation and policies.
    - 2) Testing Center at another educational institution—students not living in the Mt. Pleasant area may use another Testing Center, but it must be approved by the instructor in advance. Please note that some testing centers charge a fee to proctor an exam, and some centers require several days advance notice and an appointment. The student is responsible for checking on that prior to the exam. There are no extensions for missed exams due to Testing Center complications. Students will need to provide instructor with the name of the educational institution, the name of the person who will proctor the exam, the phone number of that person, and the business email for that person. This must be done AND approved at least three days in advance of the exam. It is the student's responsibility to make sure that he/she is aware of the Testing Center Hours of Operation and policies for the testing center.

## **Required Instructional Materials:**

In an effort to save students money, your course materials are delivered through Inclusive Access. You have already paid for your course materials with your tuition and fees. Below is the required course material:

#### 0-321-19991-X PEARSON/DIGITAL TEXT W/MYMATHLAB

To access your course materials, click on the Course Materials Access link within the Start Here folder on Blackboard.

For additional information on Inclusive Access, please access the textbook information provided on the portal (student tab, click on Academics then Textbooks.)

## **Optional Instructional Materials:**

Blitzer; *College Algebra*, 7<sup>th</sup> Edition Printed textbook with MyMathLab access code

**ISBN Number**-978-0-13-446987-4 (Loose-leaf print upgrade)

## **Minimum Technology Requirements:**

Graphing Calculator is required. TI-84 is preferred, but other models may be approved by the instructor.

## **Required Computer Literacy Skills:**

- 1) Communicate via email;
- 2) Saving and reloading saved files;
- 3) Navigate Blackboard to access posted materials and MyMathLab assignments.

#### **Course Structure and Overview:**

This is a 16-week online course where students are required to access graded activities on MyMathLab via the Blackboard Learning Management System. A typical week involves general participation by all students in discussion forums involving mathematical and statistical principles and the algorithms needed to apply these principles. Students are required to complete online homework. In addition, students are expected to watch instructional videos, read course textbook, and complete online assignments located in the Learning Management System, Blackboard, by due dates. To be successful, it is very important for students to keep up with course materials and assignments.

#### **Communications:**

Emails will normally be responded to within 24 hours during the week and 48 hours on the weekend. Students are expected to abide by Netiquette rules when communicating online. See this link for details: www.https://coursedesign.colostate.edu/obj/corerulesnet.html.

The college's official means of communication is via your campus email address. Your instructors will use your campus email, Blackboard, and MyMathLab 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.

Students are expected to check in to the class daily on Blackboard and MyMathLab to find the assignments and communications from the instructor. Students are also expected to check their email daily in case there is a communication from the instructor that needs a timely response.

## **Institutional/Course Policy:**

No late work will be accepted without prior approval by the instructor. It is the student's responsibility to check Blackboard and MyMathLab for important information/announcements regarding the course. Students should be working on course material via Blackboard/MyMathLab every week. 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.

#### **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 special population 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**

(\*notes\* 1. Instructor reserves the right to make adjustments to this timeline at any point in the term and 2. If this timeline differs from the MyMathLab calendar, MML will be the official date):

Course Schedule: (Subject to Change)

| Weeks                     | <b>Topics</b>           | Assignments   | <b>Due Dates</b> |
|---------------------------|-------------------------|---|------------------|
| TTOORD                    | <u> </u>                | 1 AUDI CITIES OF THE PROPERTY | (Due by          |
|                           |                         |   | 11:59pm          |
|                           |                         |   | CST              |
|                           |                         |   | unless           |
|                           |                         |   | otherwise        |
|                           |                         |   | noted)           |
|                           |                         |   | noted)           |
|                           |                         |   |                  |
|                           |                         |   |                  |
|                           |                         |   |                  |
| Week 1: 1/21/20 -1/26/20  | Ch. 1:                  | MyMathLab Orientation   | 1/26/20          |
|                           | Equations and           | Assignment and Concept  |                  |
|                           | Inequalities            | Mastery (2), Homework, and  |                  |
|                           | Sections 1.1 and 1.2    | Quiz  |                  |
| Week 2: 1/27/20 – 2/2/20  | Sections 1.4 and 1.5A   | MML Concept Mastery (2),  | 2/2/20           |
|                           |                         | Homework, and Quiz  |                  |
| Week 3: 2/3/20 – 2/9/20   | Sections 1.5B and 1.6A  | MML Concept Mastery (2),  | 2/9/20           |
|                           |                         | Homework, and Quiz  |                  |
|                           |                         |   |                  |
| Week 4: 2/10/20 – 2/16/20 | Sections 1.6B and 1.7   | MML Concept Mastery (2),  | 2/16/20          |
|                           |                         | Homework, and Quiz  |                  |
| Week 5: 2/17/20 – 2/23/20 | Sections 1.1, 1.2, 1.4, | Ch. 1 Review  | 2/23/20          |
|                           | 1.5, 1.6, 1.7           |   |                  |
| Week 6: 2/24/20 – 3/1/20  |                         | Ch. 1 Test  | 2/24/20          |
|                           | Ch. 2: Functions &      |   |                  |
|                           | Graphs                  | MML Concept Mastery (2),  | 3/1/20           |
|                           | Sections 2.1, 2.2       | Homework, and Quiz  |                  |
| Week 7: 3/2/20 – 3/8/20   | Sections 2.3, 2.4, 2.5  | MML Concept Mastery (3),  | 3/8/20           |
|                           | , ,                     | Homework, and Quiz  |                  |
| Week 8: 3/9/20 – 3/15/20  | Sections 2.6, 2.7, 2.8  | MML Concept Mastery (3),  | 3/15/20          |
|                           |                         | Homework, and Quiz  |                  |
|                           | 1                       | ,   | •                |
|                           |                         |   |                  |

| 3/16/20 - 3/22/20         | Spring Break           |                          |         |
|---------------------------|------------------------|--------------------------|---------|
|                           |                        |                          |         |
| Week 9: 3/23/20 – 3/29/20 | 2.1 - 2.8              | Ch. 2 Review             | 3/24/20 |
|                           |                        | Ch. 2 Test (Proctored)   | 3/27/20 |
|                           | Ch. 3: Polynomial and  |                          | NOON    |
|                           | Rational Functions     | MML Concept Mastery (3), | 3/29/20 |
|                           | Sections 3.1, 3.2, 3.3 | Homework, and Quiz       |         |
| Week 10: 3/30/20 – 4/5/20 | Sections 3.4, 3.5      | MML Concept Mastery (2), | 4/5/20  |
|                           |                        | Homework, and Quiz       |         |
|                           |                        | Ch. 3 Review             | 4/5/20  |

| Week 11: 4/6/20 – 4/12/20  |   | Ch. 3 Test   | 4/6/20              |
|----------------------------|---|--|---------------------|
|                            | Ch. 5: Systems of Equations & Inequalities Sections 5.1, 5.2                  | MML Concept Mastery (2),<br>Homework, and Quiz   | 4/12/20             |
| Week 12: 4/13/20 – 4/19/20 | Ch. 6: Matrices & Determinants Sections 6.1, 6.3                              | MML Concept Mastery (2),<br>Homework, and Quiz   | 4/19/20             |
| Week 13: 4/20/20 – 4/26/20 | Ch. 4: Exponential & Logarithmic Functions Sections 4.1, 4.2                  | MML Concept Mastery (2),<br>Homework, and Quiz   | 4/26/20             |
| Week 14: 4/27/20 – 5/3/20  | Ch. 4 Sections 4.1, 4.2<br>Ch. 5 Sections 5.1, 5.2<br>Ch. 6 Sections 6.1, 6.3 | Ch. 4-6 Review and<br>MML Semester Review<br>Questions for Written Part of<br>Final Exam | 5/3/20              |
|                            |   | Ch. 4-6 Test (Proctored)   | 5/6/20<br>6:00 p.m. |
|                            |   | Written Semester Exam<br>Problems  | 5/7/20              |
| Week 15: 5/4/20 – 5/10/20  | Cumulative Final Exam<br>Review   | Final Exam Review  | 5/7/20              |
| Week 16: 5/11/20 – 5/14/20 | Cumulative Final Exam   | Final Exam   | 5/12/20             |