McLennan COMMUNITY COLLEGE

WACO, TEXAS

COURSE SYLLABUS

AND

INSTRUCTOR PLAN

COLLEGE ALGEBRA

MATH-1314-05

ROOM 206

DR. MEERA D GURUNG

NOTE: This is a 16-week course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html on any changes to these guidelines.

Course Description:

In-depth study and application of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability and conics may be included. Semester Hours 3 (3 Lecture) and Graphing Calculator Required.

Prerequisites and/or Corequisites:

Math 0311 or consent of division chair.

Course Notes and Instructor Recommendations:

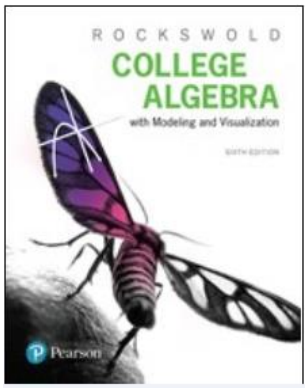
Course note will posted on brightspace and it is important to read the text part before coming to the classes, make note in each class, do not miss classes if possible.

Instructor Information:

Instructor Name: Meera Gurung
MCC E-mail: mgurung@mclennan.edu
Office Phone Number: 254-299-8831
Office Location: Math 226
Office/Teacher Conference Hours: Monday & Wednesday 12:40PM-1:10 PM. Tuesday 10:00am : 12:00 PM
Other Instruction Information: Other hours are available by appointment (sending me an e-mail to make the suitable time both for you and me)

Required Text & Materials:

Title: COLLEGE ALGEBRA WITH MODELING & VISULAIZATION,
Author: Rockswold
Edition: 6th edition
Publisher: Pearson



ISBN: 9780134418049

TI 83/84 Graphing Calculator Required

MCC Bookstore Website: http://www.mclennan.edu/bookstore/

Methods of Teaching and Learning:

Math 1314 in a face-to-face format involves class meetings as well as online homework assignments found by through Brightspace of MCC. Not only will homework be available at this site, but an electronic version of the text, class notes, videos for homework and your grades. There are review for tests and numerous other learning aids available.

Students will be required to read chapters prior to lecture. Lectures will be posted on brightspace. Students may choose to view the PowerPoint and lectures for further review and learning enhancement. All students will be required to submit homework on peasrsonmylab through Brightspace of MCC and all students will gain at least 70% of the credit of the section in order to access the next section homework. The due day is same for all the sections: 12/06/2022. Reviews are provided for exams, but they are optional. There is no extra credit. Active participation in class (asking questions, answering questions based on reading and lecture) leads to improved test scores.

Course Objectives and/or Competencies:

Upon completion of the course, the student will be able to:

1. State the definition of a function, determine domain/range of a function, evaluate expressions involving function notation, state the definition of inverse functions, find the inverse of a given function, and find composites of functions.

2. Graph the following functions: linear, quadratic, piecewise-defined, absolute value, polynomial, rational, exponential, and logarithmic.

3. Recognize and use transformations of functions such as shifting, stretching, shrinking, and reflecting.

4. Solve quadratic equations in one variable by factoring, using the square root property, completing the square, using the quadratic formula, and by graphing.

5. Solve both linear and non-linear inequalities and state the solution in interval notation**.**

6. Find the zeros and extrema of polynomials both algebraically and by graphing.

7. Solve exponential and logarithmic equations.

8. Perform operations with matrices, find determinants of matrices, and use matrices to solve systems of equations.

9. Interpret mathematical models such as formulas, graphs, and tables, and draw inferences from them.

10. Use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results, such as deriving functions which model sets of data.

11. Use critical thinking and problem solving techniques to solve real-world application problems.

STUDENT LEARNING OUTCOMES: GEN ED/MATHEMATICS

1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.
6. To recognize the limitations of mathematical and statistical models.
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines
8. **Reading** at the college level means the ability to analyze and interpret a variety of printed materials -- books, articles, and documents. A core curriculum should offer students the opportunity to master both general methods of analyzing printed materials and specific methods for analyzing the subject matter of individual disciplines.
9. **Critical thinking** embraces methods for applying both qualitative and quantitative skills analytically and creatively to subject matter in order to evaluate arguments and to construct alternative strategies. Problem solving is one of the applications of critical thinking, used to address an identified task.

Course Outline or Schedule:

Dates	Lecture/Work	Objectives/Tests
Week #1	Introduction to course requirements (Enroll into Brightspace)	Obj: 1, 2, 9
	Sec 1.1 Numbers, Data, and Problem Solving Sec 1.2 Visualizing and Graphing data	
Week #2		Obj: 1,2,9
	Sec 1. 3 Functions and Their Representations Sec 1.4 types of Functions and their Rates of Change	
Week #3	Sec 2.1 Equations of Lines	Obj: 1, 2, 9
	Sec 2.2 Linear Equations	
	Sec 2.3 Linear Inequalities	
Week #4		Obj: 1, 2, 9
	Sec 2.4 Piece Wise Functions/Greatest Integer function	
	Sec 2.5 Absolute Value Functions	
Week #5	**Exam I over Chapter 1 & 2**	Obj: 1, 2, 3, 4
	Sec 3.1 Quadratic Functions and Models	
Week #6	Sec 3.2 Quadratic Equations and Problem Solving	Obj: 1, 2, 3, 4
	Sec 3.3 Complex Numbers	
Week #7	Sec 3.3 Complex Numbers	Obj: 1, 2, 3, 4
	Sec 3.4 Quadratic Inequalities	
Week #8	Sec 3.5 Transformations of Graphs	Obj: 1, 2, 5, 6, 9, 10
	Sec 4.1 Nonlinear Functions and Their Graphs	

	Sec 4.2 Polynomial functions and Models	
Week #9	Sec 4.3 Division of Polynomials	
	Sec 4.4 Real Zeros of Polynomials	
Week #10	Sec 4.5 Fundamental Theorem of Algebra	Obj: 1, 2, 5, 6, 9, 10
	Sec 4.6 Rational Functions and Models	
	Sec 4.7 More Equations and Inequalities	
	Exam II over Chapters 3 & 4	
Week #11	Sec 5.1 Combining Functions	Obj: 1, 2, 3, 5, 6, 9, 10
	Sec 5.2 Inverse Functions	
	Sec 5.3 Exponential Functions and Models	
	Sec 5.4 Logarithmic Functions and Models	
Week #12	Sec 5.5 Property of Logarithmic Functions	Obj: 1, 2, 3, 5, 6, 9, 10
	Sec 5.6 Exponential and Logarithmic Equations	
	Sec 6.1 Functions and Systems of Equations in Two Variables	
Week #13	Sec 6.2 Systems of Inequalities in Two Variables	Obj: 1, 2, 3, 5, 6, 9, 10
	Sec 6.3 Systems of Linear Equations in Three Variables	
	Sec 6.3 Systems of Linear Equations in Three Variables	
	Sec 6.4 Solutions to Linear Systems Using Matrices	
	Sec 6.5 Properties and Applications of Matrices	
Week #14	Sec 6.6 Inverses of Matrices	Obj: 1, 2, 3, 5, 6, 9, 10
	Sec 6.7 Determinants	
	Review on Exam III over Chapters 5 & 6	
Week #15	**Exam III over Chapters 5 & 6**	
	Review on Final Exam	
Week #16	***FINAL EXAM Monday, Dec 7th***	

Course Grading Information:

For Math 1314, our grading is the following:

Homework 30%, Quizzes 10%, Tests (Three major tests and the Final test) 60%. Total of all the grades is 100%.

A: +90, B: 80-89, C: 70-79, D: 60-69, F: 59 or less

Late Work, Attendance, and Make Up Work Policies:

Due dates are set for all homework and test dates are scheduled. If students do not make the deadlines, those grades become zero. If a test is missed, the grade is zero. Instructor has the right to make adjustments to this policy under special circumstances.

Student Behavioral Expectations or Conduct Policy:

Collaboration on homework assignments and study groups for tests are strongly encouraged. ***However, at no time should work being prepared for submission and belonging to one student be in the possession of another student, even briefly***. Neither should any form of cheating occur while completing homework, tests, or exams. (Two students whose papers are submitted with identical errors will be assumed to have cheated.) If such an incident occurs, all students involved, whether in giving or receiving assistance, will receive grades of 0 for the assignment or test and will be reported to campus authorities through the *Insight* system. In the event of a second cheating incident, the student(s) will be dropped from the course and receive course grade(s) of *F*.

Click Here for the MCC Attendance/Absences Policy
(https://www.mclennan.edu/highlander-guide/policies.html)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

I reserve the right to change any term on this syllabus at any time during the semester.

McLennan COMMUNITY COLLEGE

ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:
Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu
254-299-8122
Room 319, Student Services Center

Title IX:
We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting http://www.lighthouse-services.com/mclennan/.

Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:
MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at http://www.mclennan.edu/campus-resource-guide/

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:
Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:
Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:
Go to https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:
Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:
In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:
McLennan Community College would like to remind you of the policy (http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/student-email.

Instructional Uses of Email:
Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:
The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- Email Setup for iPhones and iPads (https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us)
- Email Setup for Androids (https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us)

Forwarding Emails:
You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to MCC's Tech Support Cheat Sheet or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.