Prairie View A&M University

Course Title: Col Course Prefix: Ma	l ege Algebra ith	Course No.: 1113	Section No.: XXX	CRN: XXXX
Department of Mathematics		College of Ar	ts and Science	
Instructor Name: Office Location: Office Phone: Fax: Email Address: U.S. Postal Servic	Charles Odion W R Banks 33 936-261-1976 936-261-2088 ciodion@pvarr e Address:	3 nu.edu Prairie View A&M University P.O. Box 519 Mail Stop 2225 Prairie View, TX 77446-0519		
Office Hours: Virtual Office Hou	rs:			
Course Location: Class Meeting Da Catalog Description:	TBD ys and Times: College Algebra logarithms, expo permutations, c	a (3-0) Credit 3 semester hours. Q onential and logarithmic equations ombinations, and probability.	uadratic equations, systers, binomial theorem, prog	ems of equations, gressions,
Prerequisites: Co-requisites:	TASP- Must have made at least a "B" in Pre-Algebra or a THEA Math Score of 230 NA			
Required Text:	College Algebra	9 th edition BUNDLE with 18-Wee ISBN 13-978-1-259-24 ALEKS Code is <u>required</u> (Book is NOT included in ALEKS Class Code: U6Y	k ALEKS Code 080-5 10-1-259-2408 in order to complete this the ALEKS Code only p 76-GRXDA	30-0 s course. ourchase.)
	Authors			
	Barnett, Ziegle	er, Byleen and Sobecki		
	<u>Calculator</u> A scientific calcu series. Calculat include, but are Neither cell pho tests.	ulator is required. A graphing calo ors capable of symbolic manipula not limited to, TI 89,TI 92, and Ns nes nor PDA's can be used as ca	culator is recommended: tion will not be allowed o pire CAS models and Hi lculators. Calculators ma	e.g. TI 83 or TI 84 on tests. Examples P 48 models. ay be cleared before
Recommended Te	ext/Readings:	NA		
Access to Learnir	ng Resources:	PVAMU Library: phone: 936 261-1500 web: <u>http://www.tamu.edu</u> University Bookstore: phone: 936 261-1990 web: <u>https://www.bkstr.co</u>	<u>ı/pvamu/library</u> om/Home/10001-10734-	<u>1?demoKey=d</u>

Course Goals:

The goals of this course are to enable the student to:

	Goal	Alignment with Academic Program	Alignment with Core Curriculum
1.	Write definitions, recognize and use basic mathematical concepts.	1,2,3	1,2,3
2.	Simplify polynomial, radical, rational, exponential, and logarithmic expressions.	3	3
3.	Solve linear, quadratic, rational, radical, absolute value, exponential and logarithmic equations with one variable.	3	3
4.	Solve inequalities.	3	3
5.	Solve systems of equations.	3	3
6.	Graph polynomial, rational, exponential and logarithmic functions.	1,2	1,2
7.	Give an elementary function evaluation of polynomial, rational, radical, absolute value, exponential and logarithmic functions. To include finding the domain and range, interval of increase and decrease composition, even, odd or neither, one-to-one, and inverse of functions.	1,2	1,2
8.	Develop problem-solving skills.	1,2,3	1,2,3

Course Outcomes/Objectives

At the end of this course, the student will:

1. Be able to demonstrate mastery of the course goals listed above.

Course Requirements and Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Exams – Four multiple choice tests of 50 questions covering course material designed to measure knowledge of presented course material

Quizzes — pop quizzes will be given from time to time to measure knowledge of presented course material unannounced ahead of time.

Exercises/homework – written assignments designed to supplement and reinforce course material **Projects** – web development assignments designed to measure ability to apply presented course material **Class Participation** – daily attendance and participation in class discussions

Pre and Post Test – used departmentally only to assess the growth of students through the course and to assist in the review of curriculum. It not for student grade.

Grading Matrix

Instrument	Unit Value	Total
MathZone Assignments	Code for Hmwk:	15%
Quizzes		10%
Exam 1		15%
Mid Term Examination		15%
Exam 3		15%
Final Examination		30%
Total:		100%

Grade Determination:

 $\begin{array}{l} A = 90 - 100\%;\\ B = 80 - 89\%;\\ C = 70 - 79\%;\\ D = 60 - 69\%;\\ F = 0 - 59\% \end{array}$

Course Procedures

The use of cell phones in this class is absolutely prohibited.

Submission of Assignments:

No assigned work will be accepted after the due date.

Formatting Documents:

Microsoft Word is the standard word processing tool used at PVAMU. If you are using other word processors, be sure to use the "save as" tool and save the document in either the Microsoft Word, Rich-Text, or plain text format.

Examination Policy

Examinations should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook).

Professional Organizations and Journals

NA

References

NA

COURSE OUTLINE

Week(s)	Topic		Notes/Assignments/Exams
1, 2 & 3	1. 2.	Pre-Test. Review Basic Algebra Concepts. Real Numbers; Exponents and Radical; Polynomial Basic Operations Equations and Inequalities. Linear Equations and Applications; Linear Inequalities; Absolute Value; Complex Numbers; Quadratic Equations and Applications; Equations involving Radicals; Graph Activities: Solving a	Pre-Test,; OLHW1 and OLHW2
	3.	Cubic Equation. Graphs: Cartesian Coordinate System; Distance in the Plane; Equation of a Line; Linear Equations and Models; Graph Activities: Rates of Change	
4 & 5	4.	Functions. Functions and Function Notation; Graphing Functions; Transformations of Functions; Quadratic Functions; Combining Functions; Inverse Functions; Group Activity: Mathematical Modeling – Choosing a Long-Distance Calling Plan.	EXAM 1 & Notebook Check ,; OLHW3 & OLHW4
6 & 7	5. 6.	 Polynomial and Rational Functions. Polynomial Functions and Models; Real Zeroes and Polynomial Inequalities; Complex Zeros and Rational Zeros of Polynomials; Rational Functions and Inequalities; Variation and Modeling; Group Activity: Interpolating Polynomials. Exponential and Logarithmic Functions. Exponential Functions and Models; Logarithmic Functions and Models; Exponential and Logarithmic Equations; Group Activity: Growth of Increasing Functions . 	OnlineLD,; Quiz1,; OLHW5 & OLHW6
8&9	7.	Additional Topics in Analytic Geometry. Conic Sections : Parabola; Ellipses; Hyperbola .	Midterm,
10 & 11	8.	Systems of Equations and Inequalities; Matrices. Systems of Linear Equations; System of Linear Equations Using Gauss-Jordan Elimination; Matrix Operations; Solving Linear Systems using Inverse Matrices'	Last day to withdraw, with record of W ends,; Exam 2,

	Determinants and Cramer's Rule; Systems of Nonlinear Equations; Systems of Linear Inequalities; Linear Programming	
12 & 13	 Sequences and Series. Sequence and Series; Mathematical Induction; Arithmetic and Geometric Sequences; Counting Techniques: Multiplication Principles, Permutations, and Combinations 	Notebook check, Quiz2,; OLHW7; Fun Project due,
14	10. Sample Spaces and Probability. Binomial Formula.	Quiz3,; OLHW8
15 & 16	Group Project Presentations; Comprehensive Final Exam,	Presentation, Comprehensive Final Examination,

University Rules and Procedures

Disability statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

- 1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
- 2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
- 3. Fabrication: use of invented information or falsified research.
- 4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy:

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Technical Considerations for Online and Web-Assist Courses

Minimum Hardware and Software Requirements:

•Pentium with Windows XP or PowerMac with OS 9

- 56K modem or network access
- ·Internet provider with SLIP or PPP
- •8X or greater CD-ROM
- ·64MB RAM
- ·Hard drive with 40MB available space
- $\cdot 15"$ monitor, 800x600, color or 16 bit
- Sound card w/speakers
- ·Microphone and recording software
- ·Keyboard & mouse
- •Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0 /plug-ins

Participants should have a basic proficiency of the following computer skills:

- ·Sending and receiving email
- ·A working knowledge of the Internet
- Proficiency in Microsoft Word
- •Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette): Students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use APA standards to reference sources.

Technical Support: Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282

Communication Expectations and Standards:

All emails or discussion postings will receive a response from the instructor within 48 hours.

You can send email anytime that is convenient to you, but I check my email messages continuously during the day throughout the work-week (Monday through Friday). I will respond to email messages during the work-week by the close of business (5:00 pm) on the day following <u>my receipt</u> of them. Emails that I receive on Friday will be responded to by the close of business on the following Monday.

Submission of Assignments:

Assignments, Papers, Exercises, and Projects will distributed and submitted through your online course. Directions for accessing your online course will be provided. Additional assistance can be obtained from the Office of Distance Learning.

Discussion Requirement:

Because this is an online course, there will be no required face to face meetings on campus. However, we will participate in conversations about the readings, lectures, materials, and other aspects of the course in a true seminar fashion. We will accomplish this by use of the discussion board.

Students are required to log-on to the course website often to participate in discussion. It is strongly advised that you check the discussion area daily to keep abreast of discussions. When a topic is posted, everyone is required to participate. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.