

Course Title: Contemporary College Algebra
Course Prefix: MATH Course No.: 1103 CRN # XXX Section No.: XXX

Department of Mathematics | College of Arts & Sciences

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Other times by appointment

Virtual Office Hours: By Appointment

Course Location: TBD

Class Meeting Days & Times: TBD

Catalog Description: Math 1103 (3 – 0) Credit 3 semester hours. Data Collection, Variable Representation; Function; Linear Function; Prediction; Systems of linear equations; Linear Programming; Applications; Modeling across the discipline; Quadratic and other fundamental functions; Probability; Sampling Spaces; Expectations, Models; Consumer Mathematics; Simple and compound interests, finance charges, new balance and monthly payments, annual percentage rate(APR), annuity and amortization

Prerequisites: THEA exempt or pass math portion of THEA with minimum grade of 230. “B” in PreAlgebra.

Co-requisites: NA

Required Text: Contemporary College Algebra: Data Functions and Modeling 6th edition, by Don Small, McGraw Hill Publisher.

Recommended Text/Readings: Graphing Calculator Manual (TI 83-Plus and above or equivalent)
Access to the New York Times, Washington Post
or
U.S A. Today Newspaper.

Access to Learning Resources: PVAMU Library:
phone: (936) 261-1500;
web: <http://www.tamu.edu/pvamu/library/>
University Bookstore:
phone: (936) 261-1990;
web: <https://www.bkstr.com/Home/10001-10734-1?demoKey=d>

Course Goals or Overview:

1. The course is designed for students as an alternative to College Algebra (MATH 1113) and will satisfy the minimum mathematics core requirement. This course is intended for those students not intending to enroll in the Calculus sequence (MATH 1124 and higher). Topics have been developed and modeled that are useful in our contemporary world.

2. The course is designed to develop a student for the future by empowering them to: communicate mathematically including reading, writing, listening and presenting; understand the concept of collaborative learning thru participation in learning teams; appropriately utilize technology to enhance each learning experience and to build mathematics confidence as they participate and apply the mathematics to meaningful situations.

Course Outcomes / Objectives:

The following numbers are used to explain the Core Objectives in column 3,4 and 5:

- 1 – Critical Thinking
- 2 – Communication Skills
- 3 – Empirical and Quantitative
- 4 – Teamwork
- 5 – Personal Responsibility
- 6 – Social Responsibility

	Course Objectives: Upon the completion of the course, the student will be able to:	Mathematics Program Outcomes	*CUPM Recommendations	University Core Outcomes
1	collect, display and interpret data using line, scatter, bar and pie charts	1,3	2,5	1,2,
2	recognize basic mathematical patterns and use the patterns to solve problems	1,2	2	2,6
3	understand the meaning of a variable and the relationships between variables	1,2	2	2,6
4	develop functions based on data collected in real world applications	1,2	2,3,4	2,6
5	identify and determine the difference between polynomial, rational, radical, absolute and transcendental functions	1,2	2,5	2,6
6	find the domain and range, intervals of increasing and decreasing, one-to-one and the inverses of functions	1,2	2,5	2,6
7	demonstrate the understanding of linear equations, systems of linear equations, linear inequalities, linear programming and the applications of each	1,2,3	2,4,5	2,6
8	understand the relationships between linear	1,2,3	2	2,6

	inequalities and linear programming			
9	demonstrate the understanding of basic graph transformations	1,3	2,5	2,6
10	understand the basic concepts of probability	1,2	2,4,5	2,6
11	develop problem solving skills and model real world applications related to appropriate disciplines utilizing multiple approaches	1,2,3	2,3,4,5	2,6

*Committee on the Undergraduate Programs in Mathematics

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 – written tests designed to measure knowledge of presented course material

Exercises – written assignments designed to supplement and reinforce course material

Projects – (individual and group projects) development assignments designed to measure ability to apply presented course material

Class Participation – daily attendance and participation in class discussions

Journal Entries – written documentation to provide instructor level of understanding of material presented

Computer Assignments – Computer assignments designed to reinforce and supplement course material

Grading Matrix

Instrument	Value (points or percentages)	Total
Test	2 @ 100 points each	200
Journal Entries (Written Communication)	Min 10 @ 5 points each	50
Computer Lab Activities/ Homework	5 @ 20 points each	100
Individual Project	1 @ 100 points	100
Group Projects (Individual/Group Written and Oral Presentations)	2 projects at 100 points each	200
Mid Term Exam	1 @ 100	100
Class Participation/ Attendance	1 point deducted for each missed class	50
Final Exam	1 @ 200 points	200
Total:		1000

Grade Determination:

A = 900 – 1000pts;

B = 800 – 899pts;

C = 700 – 799pts;

D = 600 – 699pts;

F = 599 pts or below

Course Procedures

Submission of Assignments:

All journal entries, individual project and homework assignments must be submitted electronically thru e-course.

There will be no late assignments accepted. If a student will be absent from class due to participation in an excused university activity, they must make arrangements to turn in assignments prior to the absence.

Formatting Documents:

Microsoft Word is the standard word processing tool used at PVAMU. If you're 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.

Exam Policy

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

If a student will be absent from class due to participation in an excused university activity, they must make arrangements to take the test prior to the absence. The final exam grade may be substituted for one missed test.

Class Schedule

Week	Textbook Chapter	Section / Concept Covered	Homework/Project/Assignments	Due Dates/ Test Dates
I	1 Overview	Introduction to: Course Goals/Student Responsibility/ E-Course Info/ Small Group Act./ Sample Projects/ Individual Project	Read Course Information Material/ Read Chapter 1	
I		Pre-Test		
		Individual Project	Record the number of post you put on facebook each day for 10 days and the number of post you receive for those same ten days. Log the information in a table and then display the data in two other formats (graphs). Write a one page paper on the history of facebook include the pros and cons. Include appropriate references for information used.	Individual Project (100 points) (addresses written communication skills in critical thinking)
		Journal Entries	A journal entry should reflect (1)knowledge gained during the week of class (2) the entry should summarize what was learned to include definitions and at least one example and (3) how much time was spent studying for this class this week.	Minimum of 10 entries during the semester. The entries are to be submitted before Saturday midnight of each week. (50 points)
I	2 Data and Variables	2.1 Displaying Data Graphing Calculator Intro	Section 2.1 Practice Exercises 1, 2, 5, 7, 15	Reference TI – 83/84 and CASIO Graphing Calculator Guidebook and demonstration
II	2	Data Collection	Group Project 1 Sample Income Tax Project Instructions will be posted on eCourse	Group Project 1 (100 points)
II	2	Data Collection	Newspaper Activity – data collection, interpretation and predictions	
II		Library Presentation	Utilizing Resources available in the JB Coleman Library	Location TBA (addresses critical thinking – grades)
III	2	2.2 Average (Mean)	Section 2.2 Practice Exercises 2, 5, 14, 17, 18	E-Course Homework

		<p>2.3 Median and Mode</p> <p>2.4 Variable Representation</p>	<p>(Class work)</p> <p>Homework – Define all new terms in Chapter 2.</p> <p>Section 2.3- Small Group Activities Mean, Median, Mode Exercise</p> <p>Section 2.4 Practice Exercises 2.4 1,2,4,7,13</p>	<p>Assignment Submit Definitions for all new terms in Chapter 2. (20 points)</p> <p>Reminder Submit Individual Project</p>
IV	2	<p>2.4 Variable Representation</p> <p>2.5 Circle Properties</p> <p>Review for Test 1</p>	<p>Small Group Activity</p> <p>Section 2.5 Small Group Activity Practice Exercises 2.5 , 18</p>	
V		<p>Chapter 1 Chapter 2 Sections 2.1 – 2.5</p>	TEST I	(100 points)
V	2	<p>2.6 Discovering Relations Between Variables</p> <p>2.6</p>	<p>Section 2.6 Practice Exercises 2,4,5,7, 11</p> <p>Section 2.6 Query 7 and 10</p>	
VI	2	<p>2.7 Applications and Linear Equations</p>	<p>Section 2.7 Small Group Activity Practice Exercises 5, 16, 25</p>	
VI		<p>Continuation of Linear Functions Applications</p>	<p>Computer Homework Assignment www.interactmath.com Specific required problems posted on eCourse</p>	<p>You may use the Computer Lab in Rm 210 W.R. Banks Submit (20 points)</p>
VI	2	<p>2.8 Systems of Equations</p>	<p>Section 2.8 Practice Exercises 1,4,5,6,7 Matrix (Calculator)</p>	<p>Reminder Group Project 1 Due</p>
VII	2	<p>2.9 Linear Inequalities</p>	<p>Section 2.9 Practice Exercise 17 Small Group Activity</p>	
VII		<p>2.10 Linear Programming</p>	<p>Section 2.10</p>	

VII	2	Modeling Across the curriculum	Selected small group problems in class	
VIII		Summarize and review Chapter 2	Midterm Chapters 1 & 2 (2.1 – 2.10)	(100 points)
IX	3	3.1 Displaying Functions	Section 3.1 Practice Exercises 5 - 12	Homework Submit definitions for all terms in Chapter 3. (E-Course Assignment) (20 points)
IX	3	3.2 Definitions (Relations, Functions, Domain, Range, Ind Variable, Dep Variable)	Section 3.2 Practice Exercises 1, 2, 4, 25, 26	
IX	3	3.3 Predictions Based on Data (Power, Radical, Exponential)	Section 3.3 Practice Exercise 28 Small Group Activity	
X		3.3 Additional functions (Logarithmic, Rational, Absolute Value, Higher Order, Transcendental) 3.4 Shifting and Scaling	Section 3.3 Practice Exercises 16, 18, 20, 21 3.4 Practice Exercises 24, 25 Computer Homework Assignment www.interactmath.com Specific required problems posted on eCourse	(20 points)
X	3	3.5 Algebra of Functions	Family of Function Homework Assignment	(20 points)
XI	3	Section 3.6 Graphical Approximations		
XII		Section 3.6 Continuation of Graphical Approx. Review for Test 3		
XIII	3		Test 3 Chapter 3	100 points
XIII	3	Section 3.7 Symbolic		

		Approximation of Data		
XIII	3	Section 3.7 Continuation of Data Approx	Practice Exercises 3.7 - 10, 17	
XIII			Group Project 2 – The Bones Know Page 233(Project may be submitted on eCourse or as a Poster)	Project Due (100 points)
XIV	3	Select Sections in Chapter 4 related to majors of students enrolled in the class	In class small group assignments from Chapter 4. Class is divided into groups which are determined by their major. Written report and Oral presentation are presented to class.	
XIV	4	Select Sections in Chapter 4 related to majors of students enrolled in the class	Small groups. . Class is divided into groups which are determined by their major. Written report and Oral presentation are presented to class.	
XIV	4	Project Day	Presentation of Group Projects to the class	
XV		Review Days		
XV		Study Days		
XVII			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". **One point will be deducted for each absence from points allotted for attendance. 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
- 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 ***my receipt*** 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.