

## Texas A&M University – Texarkana College Algebra Course Syllabus

*Effective Date:* Summer 2014

- I. Course Number:** MATH 1314
- II. Course Title:** College Algebra
- III. Semester Credit Hours:** 3 credit hrs
  - Instructor:** Kenny Irizarry, PE, REM
  - Office:** SCIT 318H, Hours: By Appointment
  - Email:** [kirizarry@tamut.edu](mailto:kirizarry@tamut.edu)
  - Phone:** (903) 223-3041
- IV. Course Description:** Study of quadratics, polynomial, rational, logarithmic, and exponential functions; systems of equations; sequences and series; and matrices and determinants.
- V. Course Delivery Method:** Face to face.
- VI. Required Textbooks/Resources:** *College Algebra*, Larson, 9th Edition, by Cengage Learning, ISBN: 9781133963028

**A scientific calculator (TI-83 or TI84) will be needed for this course.** (The library has some calculators available for use on a first-come, first-served basis.)

**VII. Student Learning Outcomes:**

The Texas Higher Education Coordinating Board adopted Exemplary Educational Objectives (EEOs) to establish a common knowledge thread through the courses taught within the Texas Core Curriculum. The Mathematics EEOs are integrated into the Student Learning Outcomes below:

- To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.
- To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.
- To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.
- To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.
- To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.
- To recognize the limitations of mathematical and statistical models.
- To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.

### VIII. Course Outline and Tentative Schedule:

Week	Date	Sections
1	3-Jun	1.1 – Graphs of Equations 1.2 – Linear equations in one variable 1.3 – Modeling with linear equations 1.4 – Quadratic equations and applications
	5-Jun	1.5 – Complex Numbers 1.6 – Other types of equations 1.7 – Linear inequalities in one variable 1.8 – Other types of inequalities
2	10-Jun	Ch 1 Review
	<b>12-Jun</b>	<b>Exam 1</b>
3	17-Jun	2.1 – Linear equations in two variables 2.2 - Functions 2.3 – Analyzing graphs of functions
	19-Jun	2.4 – A library of parent functions 2.5 – Transformations of functions 2.6 – Combinations of functions: Composite functions 2.7 – Inverse functions
4	24-Jun	3.1 – Quadratic functions and models 3.2 – Polynomial functions of higher degree
	26-Jun	3.3 – Polynomial and synthetic division 3.4 – Zeros of polynomial functions 3.5 – Mathematical modeling and variation
5	1-Jul	Ch 2 & 3 Review
	<b>3-Jul</b>	<b>Exam 2 (Take Home)</b>
6	8-Jul	4.1 – Rational functions and asymptotes 4.2 – Graphs of rational functions 4.3 - Conics 4.4 – Translations of Conics
	10-Jul	5.1 – Exponential functions and their graphs 5.2 – Logarithmic functions and their graphs
7	15-Jul	5.3 – Properties of logarithms 5.4 – Exponential and logarithmic equations 5.5 – Exponential and logarithmic models
	17-Jul	Ch 4 & 5 Review
8	<b>22-Jul</b>	<b>Exam 3</b>
	24-Jul	6.1 – Linear and nonlinear systems of equations 6.2 – Two-variable linear systems 6.3 – Multivariable linear systems 6.5 – Systems of inequalities
9	<b>29-Jul</b>	<b>Exam 4 (After a brief review)</b>
	31-Jul	7.1 – Matrices and systems of equations 7.2 – Operations with matrices 7.3 – The inverse of a square matrix 7.4 – The determinant of a square matrix 7.5 – Applications of matrices and determinants
10	5-Aug	Review
	<b>7-Aug</b>	<b>Final Exam (Exam 5)</b>

\*This calendar will be adjusted to the needs of the course. Changes will be based on the course progress.

**IX. Methods of Evaluation:**

Seven Homework (5 Count)	15%	150 pts
Four Exams	60%	600 pts
Comprehensive Final	25%	250 pts
Total	100%	1000 pts possible

**X. Grading Scale:** A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = 0-59%

**XI. Library/Media Resources Assessment:**

**A. Books/Periodicals/Electronic Data Bases/Software/Programs:**

Resource	Available?		If "No," Est.Cost	Signature, Library Director	Comments  (including availability of funds to acquire unavailable resource(s) and commitment to do so)
	Yes	No			
All University library resources are available for student research and as sources.	X				

**B. Computing/Multimedia/Online Media Resources:**

Resource	Available?		If "No," Est.Cost	Signature, Assoc. VP, IT	Comments  (including availability of funds to acquire unavailable resource(s) and commitment to do so)
	Yes	No			
All University library online resources are available for student research and as sources.	X				

**XII. Student Participation:**

- a. **Participation Policy:** You are expected to attend all lecture classes. Class attendance is very important since many of the exam questions will be drawn from the class lectures, demonstrations, and discussions. Taking good class notes is essential. Reading the chapter prior to coming to class is also recommended. You are expected to participate in all team project exercises.
- b. **Course Etiquette:** You are expected to be courteous towards the instructor and your classmates. You are expected to be on time for lecture. Cell phones should be turned off during lecture. You should not talk to your classmates while I am talking or while one of your classmates is asking a question.
- c. **Discussion Board Standards:** Not applicable to this course.

**XIII. Disability Accommodations:** Students with disabilities may request reasonable accommodations through the A&M-Texarkana Disability Services Office by calling 903-223-3062.

**XIV. Academic Integrity:** Academic honesty is expected of students enrolled in this course. Cheating on examinations, unauthorized collaboration, falsification of research data, plagiarism, and undocumented use of materials from any source constitute academic dishonesty and may be grounds for a grade of 'F' in the course and/or disciplinary actions. For additional information, see the university catalog.

**XV. A&M-Texarkana Email Address:** Upon application to Texas A&M University-Texarkana an individual will be assigned an A&M-Texarkana email account. This email account will be used to deliver official university correspondence. Each individual is responsible for information sent and received via the university email account and is expected to check the official A&M-Texarkana email account on a frequent and consistent basis. Faculty and students are required to utilize the university email account when communicating about coursework.

**XVI. Drop Policy** To drop this course after the census date (see [semester calendar](#)), a student must complete the Drop/Withdrawal Request Form, located on the University website <http://tamut.edu/Registrar/droppingwithdrawing-from-classes.html>) or obtained in the Registrar's Office. The student must submit the signed and completed form to the instructor of each course indicated on the form to be dropped for his/her signature. The signature is not an "approval" to drop, but rather confirmation that the student has discussed the drop/withdrawal with the faculty member. The form must be submitted to the Registrar's office for processing in person, email [Registrar@tamut.edu](mailto:Registrar@tamut.edu), mail (7101 University Ave., Texarkana, TX 75503) or fax (903-223-3140). Drop/withdraw forms missing any of the required information will not be accepted by the Registrar's Office for processing. It is the student's responsibility to ensure that the form is completed properly before submission. If a student stops participating in class (attending and submitting assignments) but does not complete and submit the drop/withdrawal form, a final grade based on work completed as outlined in the syllabus will be assigned.

**XVII. Student Technical Assistance:**

- Solutions to common problems and FAQ's for your web-enhanced and online courses are found at this link: <http://www.tamut.edu/webcourses/index.php?pageid=37>
- If you cannot find your resolution there, you can send in a support request detailing your specific problem here: <http://www.tamut.edu/webcourses/gethelp2.php>
- Blackboard Helpdesk contacts:

Office hours are: Monday - Friday, 8:00a to 5:00p

Julia Allen (main contact) 903-223-3154 [julia.allen@tamut.edu](mailto:julia.allen@tamut.edu)

Frank Miller (alternate) 903-223-3156 [frank.miller@tamut.edu](mailto:frank.miller@tamut.edu)

Nikki Thomson (alternate) 903-223-3083 [nikki.thomson@tamut.edu](mailto:nikki.thomson@tamut.edu)

**XVIII. Additional Notes:** The instructor reserves the right to modify this syllabus at any time as deemed necessary. Any modifications will be announced as soon as possible. The faculty of the College of Science, Technology, Engineering, and Mathematics is committed to the continuous improvement in the quality of instruction. Student input is important and will be obtained at the end of the course.