



Syllabus for Math 1314 – 42004, Fall2009
COLLEGE ALGEBRA

Habib Y. Far, Instructor

Course Schedule: TTH, 7-8:20 pm, F-219

Course Description: Topics include absolute value equations and inequalities, graphing skills, inverse functions, logarithmic and exponential functions, polynomial and rational functions, piecewise-defined functions, theory of equations and systems of equations.

Prerequisites: MATH 0310 or placement by testing

Credit Hours: 3 credit hours

Learning Outcomes: Upon completion of this course, making use of small group projects, mathematical software, written homework and exams, you will:

- Evaluate a function from its graph, formula or equation,
- Determine if a relation is a function and state its domain and range given the graph or equation,
- Perform algebraic operations and compositions with functions,
- Categorize basic functions given the graphs or equations,
- Graph the inverse of a function whose graph is given,
- Solve logarithmic, exponential, absolute value, radical and miscellaneous higher order equations,
- Solve polynomial and rational inequalities,
- Graph rational, polynomial, piecewise, exponential and logarithmic functions and selected inverses,
- Use symmetry and transformations to sketch graphs,
- Solve linear and nonlinear systems of equations,
- Set up and solve applications involving functions and relations.

Topics

- Definition of a function of one variable, its graph and its inverse function
- The general algebra of functions (sums, differences, products, quotients, and compositions)
- Linear functions: graphs, slope and y-intercept
- Quadratic functions: graphs, vertex using the quadratic formula
- Polynomial functions: graphs, zeros and factors using synthetic division, The Fundamental Theorem of Algebra, Descartes' rule of signs, and the Rational Root Theorem
- Rational functions: graphs, zeros, horizontal/vertical/slant asymptotes
- Exponential and Logarithmic functions: graphs, properties of exponents and logarithms, solution to exponential and logarithmic equations, applications to compound interest, organic growth rates
- Theory and solutions to systems of linear equations
- Introduction to matrices and determinants

Required Materials:

- J.S. Ratti, Marcus McWaters, *College Algebra*, Pearson Addison Wesley, 2008.
- Graphing Calculator, binder, paper, pencil, eraser, and small ruler.
- My Math Lab access code

Instructor: Habib Y. Far**Office: F-249****Office Hours:** TTH, 5-5:30 and 8:20-8:50 pm.**Phone:** (936) 273-7093**Fax:** (936) 273-7041**Email:** habib.y.far@lonestar.edu**URL:** <http://faculty.lonestar.edu/hfar/>**Math Department Office:** (936) 273-7260**Department Chair:** Dr. Maureen Loiacano, F244, 936-273-7273 Maureen.Loiacano@lonestar.edu**Division Dean:** Lawrence D. Brandyburg, Ph.D., F252, 936-273-7020email: lawrence.d.brandyburg@lonestar.edu**Advising**

For student problems or counseling, or for additional assistance or more information on degree plans or future courses that Lone Star College – Montgomery may offer, please contact one of the following:

Barbara Eckenfels, Counselor

Juan C. Lebron

F-240

F-250

936-273-7246

936-273-7280

Barbara.A.Eckenfels@lonestar.eduJuan.C.Lebron@lonestar.edu**Extended Learning Center (ELC):** (936) 273-7373, 7404**Testing Center:** (936) 273-7377**Library:** (936) 273-7387, 7390**MyMathLab**

The pages of the actual book are at MyMathLab.com, and as students work through a section of the on-line text, they can link directly from the pages to supplementary resources (such as tutorial software, interactive animations, and audio and video clips) that provide instruction, exploration and practice beyond what is offered in the printed book.

All students may access my math lab by following these steps:

1. Purchase an access code either with a new text or separately.
2. Sign onto www.mymathlab.com
3. Follow the instruction sheet
4. When prompted, enter the Instructor course id:

- If MyMathLab is down, you can contact the site by logging into: www.mathxl.com
- to get help for My Math Lab call 800-677-6337, M-F, 9-6, EST.

AW Math Tutor Center: The AW Math Tutor Center is staffed by qualified mathematics instructors who provide students with tutoring. Tutoring is available via toll-free telephone, fax, or the Internet. An access card is required.

For tutoring call 888-777-0463 or e-mail tutor@aw.com Technical support: 800-677-6337

Evaluation: Your grade for the semester will be calculated based on the following.

Four 100-point exams	56%
Final exam	28%
Homework	16%
Total	100%

Grading is the usual 100 points A, B, C, D, and F scale.

- The **four tests** will be administered as scheduled according to the proposed calendar.
- **Final Exam is on Thursday December 10 at 7:30 pm and it is comprehensive.**
- **Homework:** There are 33 homework assignments corresponding to the proposed calendar for the semester. All homework assignments can be done multiple times, can be corrected immediately, and can be done partially but the pre-designated deadlines have to be met. That is, you can start a homework assignment, finish a few problems, logout, login some later time, and do a few more problems. Computer will give you an immediate feedback on your answers. You can try a problem multiple times, use guided solution, or consult your textbook on how to work on that specific problem. These homework assignments can be done on campus or at any location of your choosing. As we will see, most exercises in these homework assignments require a free response, that is, after reading the question, you work the problem on paper; then enter the answer using keyboard. You should make sure that you are comfortable with mathematical writing as are demonstrated in class and in your textbook through examples and exercises.
- **Make-up Exams: You are expected to take all your tests with the class at the scheduled times. As a rule make-up exams are not given.** In case of an **emergency and/or under extreme circumstances if you have to miss a test** please contact me by phone or by email during or before the test to arrange a time for you to take your test. In any case the **test has to be taken before the next class meeting.**

Attendance Expectations:

- **Regular and punctual** attendance is extremely important for success in mathematics classes. Those of you who miss the equivalent of **two weeks** of class meetings may be **dropped** from the course. There are no excused absences.
- It is important that students be on time for class since late arrivals directly affect the student performance, as well as interrupts the learning process of those who arrive on time.
- If you are unable to complete this course. **YOU must withdraw from the course yourself!!**
- Withdrawal from a course is a formal procedure that YOU must initiate. If you just stop coming to class and do not officially withdraw, you will receive an "F."
- Students often drop a course when help is available. Please discuss your plans with me if you feel the need to withdraw, and I will try to work with you so you can successfully complete the course.
- Withdrawal from a course after the official day of record will result in a mark of "W" on the student's transcript and no credit will be awarded for the course(s). If a student registers and pays for a course(s) it is the student's responsibility to drop/withdraw before the "W" date. (Catalog description of District Withdrawal Policy: <http://www.lonestar.edu/108227.pdf>)
- **In order to withdraw from the course and receive a "W" on your transcript, you must withdraw on, or before November 6, 2009.**

Classroom Behavior

- Cell phones and other electronic devices must be turned off during class.
- This is a smoke free campus and chewing tobacco is not allowed in class.

The Lone Star College Catalog [Student Conduct, Section 562.01d] states, “Disruptive activity that hinders other students’ learning or deters an instructor from effective teaching will not be tolerated under any circumstances.”

Certificate/Degree Plan: Degree plans for programs offered at Lone Star College – Montgomery can be located in the Lone Star College catalog or on the Lone Star College – Montgomery > web site at:

<http://montgomery.lonestar.edu/8700/>

Syllabus Change: While every attempt has been made to prepare this syllabus and class schedule in final form, it will be the instructor's prerogative to make any changes as may be deemed necessary in order to meet the learning outcomes of the course. Students will be notified in writing of any change.

Academic Integrity: The district upholds the core values of learning; honesty, respect, fairness, and accountability. The district promotes the importance of personal and academic honesty. The district embraces the belief that the learners, students, faculty, staff and administrators will act with integrity and honesty and must produce their own work and give appropriate credit to the work of others. Fabrication of sources, cheating, or unauthorized collaboration is not permitted on any work submitted within the district.

Consequences for academic dishonesty determined by the professor, or the professor and academic dean, or the professor and chief student services officer can include but are not limited to:

1. Having additional class requirements imposed;
2. Receiving a grade of zero or “F” for an exam or assignment;
3. Receiving a grade of “F” for the course;
4. Being withdrawn from the course or program;
5. Being expelled from the college district;

Professors should clearly explain how the student’s actions violated the academic integrity policy, how a grade was calculated, and the action taken.

Lone Star College Academic Integrity Policy: <http://www.lonestar.edu/17997/>

Software Piracy: Law strictly prohibits unauthorized copying of software purchased by Lone Star College – Montgomery for use in laboratories. Lone Star College – Montgomery administration will take appropriate disciplinary action against anyone violating copyright laws.

Computer Virus Protection: Computer viruses are, unfortunately, a fact of life. Using the diskettes on more than one computer creates the possibility of infecting computers and diskettes with a computer virus. This exposes the computers of the campus, your personal computer, and any others you may be using to potentially damaging viruses. The campus has aggressive anti-virus procedures in place to protect its computers, but cannot guarantee that a virus might not temporarily infect one of its machines. It is your responsibility to protect all computers under your control and use and ensure that each diskette you use, whenever or wherever you use it, has been scanned with anti-virus software. Since new viruses arise continually, your anti-virus software must be kept current. And, since no anti-virus software will find every virus, keeping copies of data (backups) is extremely important.

Equal Opportunity Statement

The Lone Star College System is committed to the principle of equal opportunity in education and employment. The district does not discriminate against individuals on the basis of race, color, gender, religion, disability, age, veteran status, national origin, sexual orientation, or ethnicity in the administration of its educational policies, admissions policies, employment policies, scholarship and loan programs, and other district or college administered programs and activities.

Inquiries concerning the district's policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to the Associate Vice Chancellor for Human Resources, 832.813.6698. The Associate Vice Chancellor for Human Resources is designated as the district's Equal Opportunity Officer and Title IX Coordinator. Inquiries about the laws and about compliance may also be directed to the Assistant Secretary for Civil Rights, U.S. Department of Education.

For information about your rights or grievance procedures, contact the Title IX and Section 504 Coordinator at any Lone Star College System college.

See Lone Star College catalog or go to <http://www.lonestar.edu>

ADA Statement

Lone Star College System is dedicated to providing access and services in compliance with the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973.

If you are a student with a disability, it is your responsibility to apply for services and to provide your college with appropriate support of a disability claim. Contact the Disability Services Office (Building E, office 103H) at 936-273-7239 as soon as possible to better ensure that such accommodations are implemented in a timely fashion.

See Lone Star College catalog or go to <http://www.lonestar.edu/31254/>

Tentative schedule for College Algebra-Online, 1314-42004, Fall 2009
Due Dates for Homework and Tests

Monday	Tuesday	Wednesday	Thursday	Friday
August 24	25 1.1-1.2	26	27 1.2-1.3	28
31	September 1 1.4-1.5	2	3 1.5-1.6	4
7 Labor Day Holiday	8 1.7-1.8	9	10 1.8-2.1	11
14	15 2.1-2.2	16	17 Review for Test I	18
21	22 Test I, Chapter 1, 2.1-2.2	23	24 2.3-2.4	25
28	29 2.4-2.5	30	October 1 2.6-2.7	2
5	6 2.7-2.8	7	8 3.1-3.2	9
12	13 3.3-3.4	14	15 3.5, Review for Test II	16
19	20 Test II, 2.3-2.8, Chapter 3	21	22 4.1-4.2	23
26	27 4.2-4.3	28	29 4.4-4.5	30
2	3 4.5, Review for Test III	4	5 Test III, Chapter 4	6
9	10 5.1-5.2	11	12 5.2, 5.5	13
16	17 6.1-6.2	18	19 6.2-6.3	20
23	24 Review for Test IV	25 Thanksgiving	26 Thanksgiving Holiday	27 Thanksgiving
30	December 1 Test IV, 5.1-5.2, 5.5, 6.1-6.3	2	3 Final Exam Review	4
7	8	9	10 Final Exam @ 7:30 pm	11