



Syllabus for Math 1314 – 4W001, Fall 2009 COLLEGE ALGEBRA-ONLINE

Habib Y. Far, Instructor

Course Schedule: Online

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

Instructor: Habib Y. Far

Office: F-249

Office Hours: By appointment

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, 936-273-7020

email: lawrence.d.brandyburg@lonestar.edu

Advising: For problems or counseling, additional assistance, 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.edu

Juan.C.Lebron@lonestar.edu

Extended Learning Center (ELC): (936) 273-7373, 7404

Testing Center: (936) 273-7377

Library: (936) 273-7387, 7390

Information about the course and how it works:

Introduction: This course is an **ONLINE College Algebra**, designed for students with **strong background in math** and moderate knowledge of computer and internet who are self-motivated, self-disciplined, having strong commitment, and successful at keeping a study schedule for themselves. This course is recommended for students who are in need of review of the materials in the book.

All the course materials are to be learned independently by working on computer at **MyMathLab** web site. Students can use resources available on the web site to advance in the course. **There is no need for any other supplemental materials** such as videotapes, audiotapes, solution manual, or software for this course since all are provided at the publisher's web site. The book along with supplementary resources such as tutorials, solution guide, interactive animations, and audio and video clip can be accessed through www.MyMathLab.com.

Steps required for students to follow:

1. Before you register for this course please **read the syllabus and orientation** to make sure this course fits your need and your capabilities.
2. Register for the course.
3. Purchase the book (see required book and purchasing options)
4. Contact (email) the instructor for **MyMathLab Course ID. (No Later Than 8/29/2009)**
5. Log into MyMathLab.
6. Install the plug-ins. (MathXL Player)
7. Start your homework.

Required Materials:

- J.S. Ratti, Marcus McWaters, *College Algebra*, Pearson Addison Wesley, 2008.
- Graphing Calculator
- My Math Lab access code

Purchasing Options:

- You can purchase the book bundled with Access Code packet at LSC-Montgomery bookstore or from online vendors.
- Students who do not see any need in purchasing the book can purchase the MyMathLab Access Code packet at our bookstore or from publisher’s website.

Communications: A good line of communication is very important in this course. All communications should be conducted by phone, email, or in person.

Evaluation: Your grade for this course, which is, based on the usual 100 points A, B, C, D, and F scale will be calculated based on the following.

Homework	16%
Four 100-point tests	56%
<u>Final exam</u>	<u>28%</u>
Total	100%

Homework: There are 32 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 an assignment, finish 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. As soon as all exercises in a homework assignment are done correctly, or to your satisfaction, then hand in the assignment. 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 your textbook through examples and exercises.

Tests: In addition to a **comprehensive final exam**, that will take place on **last few days of each semester**, there are **four tests in a semester**. These four tests are written tests and are done on paper at a Lone Star College system-wide testing center of your choosing. There is a window of one week (5 days in summer) to take each test. The grades will be posted on MyMathLab as soon as all collected and graded. Tests and homework are assigned, in order, and appropriate to the proposed calendar for the semester.

Final Exam: As the result of limited time at the end of each semester, **Final Exam has to be taken only at LSC-Montgomery Testing Center.**

Testing Center Hours:

Monday-Thursday	8 am – 8 pm
Friday	8 am – 8 pm
Saturday	10 am – 2 pm
Sunday	1 pm – 5 pm

Extended Learning Center Hours:

7:30 am – 9:30 pm
7:30 am – 8 pm
9 am – 4 pm
1 pm – 6 pm

Please contact Lone Star College Testing Centers for their (updated) working hours.

LSC-M Testing Center: (936) 273-7377

LSC-T Testing Center: (281) 357-3698

LSC-CF Testing Center: (281) 290-3220

Parkway Center: (281) 260-3516

LSC-K Testing Center: (281) 312-1476

LSC-NH Testing Center: (281) 618-5744

LSC-Fairbanks Center: (832) 782-5034 LSC-

LSC-Carver Center: (281) 260-3516

LSC-Willow Chase Center: (281) 401-5314

Make-up Exams: Since this is an online class and you have one week to take any test, then there are no make-up exams. You will receive a grade of zero if you miss a test or a homework set.

Withdraw Policy

Students often drop a course when help is available. Please discuss your plans with the instructor if you feel the need to withdraw, and he/she 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 9, 2009.

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.

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/>

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, 1314-4W001, Fall 2009
Due Dates for Homework and Tests

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

Final Exam has to be done by the end of Sunday December 13, working hours.