

CLARENDON COLLEGE
DIVISION OF SCIENCE AND HEALTH OPERATIONS
MATHEMATICS
ADJUNCT FACULTY
COLLEGE ALGEBRA SYLLABUS
MATH 1314 Lec 881 (3 Hour Course)
DUAL CREDIT WITH HIGH SCHOOL PRE-CALCULUS
FALL SEMESTER, 2010
AUGUST 23 – DECEMBER 17 (1st Semester)
MONDAY THROUGH FRIDAY
9:11 AM – 9:56 AM (2nd Period)
SHAMROCK ISD HIGH SCHOOL, ROOM 4

INSTRUCTOR: Ms. Miranda

COURSE INSTRUCTION AND TUTORING: Shamrock ISD High School, Room 4
Help from the instructor will be available in Room 4 from 7:45 – 8:20 am and after school from 3:35 - 4:30 pm if requested.

ONLINE TECHNOLOGY SUPPORT AND HELP: www.mathgraphs.com,
www.college.hmco.com, and www.matharticles.com

SCHOOL OFFICE PHONE: (806) 256-2241 CLARENDON: 1-800-687-9737
1-806-874-3571

TEXTBOOK: *PRECALCULUS WITH LIMITS*
A GRAPHING APPROACH, Fourth Edition
By Ron Larson, Robert P. Hostetler, and Bruce H. Edwards
Houghton Mifflin, 2005

COURSE DESCRIPTION: College Algebra, Math 1314, consists of instruction in relations, functions, equations and inequalities, exponents and radicals, mathematical induction, progressions, binomial theorem and probability.

STATEMENT OF PURPOSE: College Algebra, Math 1314, partially satisfies the requirements for the Associates degree at Clarendon College and is designed for transfer to a senior college.

METHODS OF INSTRUCTION: Instructional delivery will consist of lecture, demonstrations, and guided instruction of students at the board.

INSTRUCTIONS FOR STUDENTS TO VIEW GRADES ON-LINE:

Go to the Clarendon College website (www.clarendoncollege.edu) and click on the Student Portal.

REQUIREMENTS FOR STUDENTS WHO WILL BE JUNIORS DURING THE 2010-2011 SCHOOL YEAR MAY BE MET IN ANY ONE OF THE FOLLOWING WAYS:

1) Meeting requirements through TAKS (10th grade test):

To be enrolled in a reading-based course a student must make a scale score of at least 2200 on the English Language Arts (ELA) portion of the TAKS test with a score of at least 3 on the essay.

To be enrolled in a math-based course, a student must make a scale score of at least 2200 on the mathematics portion of the TAKS test.

2) Meeting requirements through ACCUPLACER:

This is offered at Clarendon College periodically and at Amarillo College on a daily basis. Students may take only the part needed. Results are available immediately. Call the college to check on the cost and to set up an appointment for testing.

Clarendon College (806) 256-3571 Amarillo College (806) 371-5445

CLASS POLICIES AND GRADING POLICIES:

- ❖ Pencils must be used! (No ink pens are allowed.)
- ❖ All homework assigned will be handed in.
- ❖ In the class section in which the homework is due the student will study the homework for 10 minutes and then hand it to the instructor.
- ❖ A quiz of 7 to 10 problems from the homework will be given.
- ❖ The homework will add 5 points to the quiz grade if it is at least 70% completed.
- ❖ Grades will be taken from the homework quizzes, chapter tests, and memory tests.
- ❖ Tests are worth 40% and daily work is worth 60% of the grade.
- ❖ No six weeks tests will be given.
- ❖ Tests and homework quizzes must be made up within five days of an absence.

COURSE OBJECTIVES AND COURSE OUTLINE: Upon successful completion of College Algebra, Math 1314, students should be able to master:

PRECAL/COLLEGE ALGEBRA

Chapter 1, FUNCTIONS AND THEIR GRAPHS

- 21 Section 1.1, Lines in the Plane,
Page 11, Exercises 1-6 all, 21-63 by 3's
- 35 Section 1.2, Functions,
Page 24, Exercises 1-10 all, 13-36 W2S2,45-65 odds
Algebra Review Exercises 95-98* Bonus Exercises 84,86,88
- 38 Section 1.3, Graphs of Functions,
Page 38, Exercises 1-20 all, 21-33 by 3's,45, 48-52 all,63,67,70,72,74,76,77
Algebra Review Exercises 97-102* Bonus Exercise 110
- 36 Section 1.4, Shifting, Reflecting, and Stretching Graphs,
Page 48, Exercises 1-43 odds, 51-64 A & B all (do C for odds)
- 37 Section 1.5, Combinations of Functions,
Page 58, Exercises 1-73 odds
- 36 Section 1.6, Inverse Functions,
Page 69, Exercises 1-19 odds, 21-24 all,25-62 W2S2
Algebra Review Exercises 89-92*

Chapter 2, POLYNOMIAL AND RATIONAL FUNCTIONS

- 31 Section 2.1, Quadratic Functions,
Page 95, Exercises 1-12 all, 15-60 by 3's,62 (A,C,D), 63,64 Algebra Review Exercises 73-76*
- 41 Section 2.2, Polynomial Functions of Higher Degree,
Page 108, Exercises 1-8 all, 9,15,21,24,25-46 all,50,51,53,73
Exercises 61,62,64 using number lines Algebra Review Exercises 105-108*
- 29 Section 2.3, Real Zeros of Polynomial Functions,
Page 123, Exercises 3,6,7,9,13-26 W2S2,31,35-38 all,39-75 by 3's (not 72)
Algebra Review Exercises 89-92*
- 24 Section 2.4, Complex Numbers,
Page 133, Exercises 3-72 by 3's
- 19 Section 2.5, The Fundamental Theorem of Algebra,
Page 140, Exercises 3-57 by 3's
- 12 Section 2.6, Rational Functions and Asymptotes,
Page 148, Exercises 3-30 by 3's,31,32
- 12 Section 2.7, Graphs of Rational Functions,
Page 157, Exercises 1,3,5,7,9-30 by 3's

Chapter 3, EXPONENTIAL AND LOGARITHMIC FUNCTIONS

- 22 Section 3.1, Exponential Functions and Their Graphs,
Page 185, Exercises 3-60 by 3's,65,70
- 22 Section 3.2, Logarithmic Functions and Their Graphs,
Page 195, Exercises 3-66 by 3's
- 34 Section 3.3, Properties of Logarithms,
Page 203, Exercises 3-60 by 3's,67-80 all Algebra Review Exercises 103-106*
- 33 Section 3.4, Solving Exponential and Logarithmic Equations,
Page 213, Exercises 3-99 by 3's
- 0 Section 3.5, Exponential and Logarithmic Models: Read and do vocabulary.
- 15 Section 3.6, Exploring Data: Nonlinear Models,
Page 234, Exercises 1-8 all,9-27 by 3's

Chapter 7, LINEAR SYSTEMS AND MATRICES

- 12 Section 7.1, Solving Systems of Equations,
Page 459, Exercises 3-36 by 3's
- 17 Section 7.2, Systems of Linear Equations in Two Variables,
Page 469, Exercises 3-51 by 3's
- 16 Section 7.3, Multivariable Linear Systems,
Page 483, Exercises 3-30 by 3's,54-69 by 3's

Chapter 8, SEQUENCES, SERIES, AND PROBABILITY

- 22 Section 8.1, Sequences and Series,
Page 563, Exercises 5-110 by 5's Algebra Review Exercises 123-126*
- 18 Section 8.2, Arithmetic Sequences and Partial Sums,
Page 573, Exercises 5-70 by 5's,77-79 all,87 Algebra Review Exercises 93,94*
- 20 Section 8.3, Geometric Sequences and Series,
Page 582, Exercises 5-70 by 5's,73-76 all,78,79 Algebra Review Exercises 104-108*
- 16 Section 8.4, Mathematical Induction,
Page 592, Exercises 3,6,7-11 all,18,19-22 all,39-48 by 3's
Algebra Review Exercises 55-66*
- 16 Section 8.5, The Binomial Theorem,
Page 599, Exercises 5-80 by 5's Algebra Review Exercises 101-106*
- 19 Section 8.6, Counting Principles,
Page 609, Exercises 3-57 by 3's
- 11 Section 8.7, Probability,
Page 620, Exercises 3-30 by 3's,32 Algebra Review Exercises 59-66*

Chapter 11, LIMITS AND AN INTRODUCTION TO CALCULUS

- 20 Section 11.1, Introduction to Limits,
Page 750, Exercises 9-15 by 3's,24-54 by 3's,17-22 all,63 & 64 discuss
Algebra Review Exercises 65-70*
- 19 Section 11.2, Techniques for Evaluating Limits,
Page 760, Exercises 1-4 all,6-27 by 3's (not 18),39-48 by 3's,59-65 odds
Algebra Review Exercises 77,78*
- 14 Section 11.3, The Tangent Line Problem,
Page 770, Exercises 3-36 by 3's,43,44 Algebra Review Exercises 61-64*

CLARENDON'S CLASSROOM CONDUCT POLICIES: Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination, classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination, classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination, classroom activity, laboratory exercise, or homework assignment; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) Plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit. Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Dean of Students when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved. Students who are reported as cheating to the Dean of Students more than once shall be disciplined by the Dean. The Dean will notify all involved parties within fourteen days of any action taken.

CLARENDON'S ACCOMMODATIONS STATEMENT: Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services [(806) 874-3571 or (800) 687-9737]. We will work with you to make whatever accommodations we need to make.

CLARENDON'S WITHDRAWAL PROCEDURE: When a student finds it necessary to withdraw from school before the end of the semester, he or she should obtain a withdrawal form from the Office of Student Services. Full instructions for withdrawing from college will be given at the time the withdrawal form is picked up. Students may also withdraw from the college by sending a written request for such action to the Registrar's Office. The request must include the student's signature, the student's current address, social security number, phone number, and course names and numbers of the courses for which the student is currently enrolled. The date postmarked on the envelope will be the official withdrawal date. Students who withdraw after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar will be assigned a grade of "W."

Any change in a student's class schedule after registration and prior to the census date of the semester is accomplished by completing the official Add/Drop Form. Students must pay a change-of-schedule fee plus any applicable tuition and fees to the Business Office if they wish to add or drop a course during this period of time. No course(s) may be added after the date designated by the school calendar as the last date to add a course.

Clarendon College, as soon as practicable, shall refund tuition and mandatory fees collected for courses from which the student drops or withdraws. (The indicated percentages are applied to the tuition and mandatory fees collected for each course from which the student is withdrawing.) Any student officially withdrawing from Clarendon College before the first day classes of any semester will be assessed a \$15 matriculation fee. (Class days refers to the number of calendar days the institution normally meets classes, not the days a particular course meets.) For semester-length courses for which semester credit hours are awarded: (1) 100% refund is to be made for courses dropped prior to the first class day. (2) During the fall or spring semester or comparable trimester i) during the first fifteen class days, 70% ii) during the sixteenth through twentieth class days, 25% iii) after the twentieth class day, none.

The last day to register or add/drop a class this semester is Tuesday, September 7, 2010, and the last day to drop a class with a "W" this semester is Friday, November 12, 2010.