

**Fall 2019 - MATH 1314-273 - COLLEGE ALGEBRA**

**INSTRUCTOR:** Ms. Jody Dean, B.S., M.S.

**OFFICE:** Rm #125G Lubbock Center

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**OFFICE HOURS:** 2:30 – 5:20 Tues & Thur, 9:00 – 12:00 Friday, and by appointment

**Course Description:** MATH 1314. COLLEGE ALGEBRA. (3:3:1) Prerequisite: Two units of high school algebra or MATH 0320. A standard course in college algebra. Quadratic equations; ratio and proportion; variation, binomial theorem; progressions; inequalities; complex numbers; theory of equations; determinants and matrices; linear programming; mathematical induction; permutations and combinations. (Copied from the current SPC catalog.)

**Textbook:** College Algebra with Intermediate Algebra: A Blended Course by Beecher, Penna, Johnson, and Bittinger

*\*The hardcopy is optional. MyMathLab will be required.\**

**Course Objectives:** Successful completion of this course should reflect mastery of the following objectives.

1. Solve and graph problems involving linear, quadratic, exponential, and logarithmic functions
2. Solve and graph linear, quadratic, and rational inequalities
3. Identify and simplify complex numbers
4. Apply midpoint, distance, and circle formulas
5. Analyze and graph polynomial functions
6. Analyze and graph rational functions
7. Create and solve systems of equations with algebraic techniques, with matrix techniques, and with determinants

**Texas Success Initiative (TSI):** The Texas Success Initiative is a state program designed to ensure that all Texas institutions provide placement testing, personal advisement and appropriate instruction to students to enhance their opportunities for success in their college studies. All new students entering Texas colleges and universities are required to take a placement test prior to enrolling in college-level courses, unless exempt from testing under specified state standards (i.e., scores on ACT, SAT or TAKS). Testing will indicate whether a student possesses adequate basic college-level skills in reading, writing and mathematics necessary to begin an undergraduate program of study. (Copied from the current SPC catalog.)

**ATTENDANCE:** Attendance and effort are the most important activities for success in this course. If you are absent, you, alone, are responsible for getting the notes and doing your assignment before the next class. If you decide to stop coming to class, you must go through the drop procedure. If you stop attending or miss *five* classes you may be dropped with a grade of F or X at the discretion of the instructor. Please talk with me to verify if you have successfully dropped the course. Please read the "Drops and Withdrawals" policies on page 21 in the current catalog. Attendance will be checked in each class meeting via an in class quiz. Your number of absences will be calculated by the number of quizzes that you do not turn in.

**HOMEWORK & QUIZZES:** Homework will be on-line using MyMathLab. Homework should be a daily occurrence. It is important to note that it is *impossible* to pass this course without the homework.

**MyMathLab:** In order to do your quizzes you must have access the internet. Follow the instructions in the MML handout to register and get started.

**You may work an assignment as many times as you would like. The best grade is the one I will record. Also, the more time you spend going over the homework, the greater the likelihood your grade will improve in the course.**

*Important Note:* The homework problems assigned online via MyMathLab are required and are the only homework grades given in this class. If you do not have a personal computer or your computer is in serious need of an upgrade, there are many computer labs on the Lubbock Center campus, the Reese Center campus, and the Levelland campus which have very liberal hours

**GRADING:** Your grade will be calculated as follows. A test average (TA) will be found by averaging all the exam grades with the final exam counting twice. Then, the test average will be averaged with your online quiz grade to give your overall average. That is:

$$(\text{Exam 1} + \text{Exam 2} + \text{Exam 3} + 2 * \text{Final Exam}) / 5 = \text{TA}$$

$$(\text{TA} * .60) + (\text{MML} * .40) = \text{Overall Average.}$$

There are **NO MAKE-UP** exams, quizzes or classroom exercises. Final grades will be assigned on the following scale: **A** 90%-100%; **B** 80%-89%; **C** 70%-79%; **D** 60%-69%; **F** below 60%

A grade of C (70) or better is required to advance to the next course. Although your grade in this course will not be used in calculating your GPA, your grade is used to determine academic status for financial aid. *This course and its grade will be recorded on your official transcript.*

**EXAMINATIONS:** There will be **3** major exams. Correct the exams as they are returned in partial preparation for the final exam. Exams **MAY NOT** be made up. If you are absent on the day an exam is given, you will receive a grade of zero for that exam. If you contact me **BEFORE** the exam, at the discretion of the instructor, the final exam grade **may** be used to replace one zero for a missed exam. This is **ONLY** if you have contacted me before the exam. Subsequent zeros will stand. *There is no such thing as missing the final exam.*

**SUPPLIES:** You will need a graphing calculator, pencils, paper for note taking. The graphing calculator should be the equivalent of a TI-84 or lower. In other words, you will **NOT** be allowed to use a TI-89 or higher on an exam. You may **NOT** use a TI-Nspire on an exam. I suggest some type of notebook to keep all class notes, homework, and exams together to make exam prep much easier.

**EXAM ETIQUETTE:** During exams there will be no talking. All electronic devices must be silenced and put away, with the exception of calculators. No cell phones may be used during exams. Once the first person turns in an exam, no one else may start. If you come in after that point, you will not be allowed to take the exam and you will receive a zero for that exam. Therefore it is extremely important that you be on time. No one may leave the room and come back during an exam.

**ACADEMIC HONESTY:** While working on homework and quizzes, students are allowed and even encouraged to work together. In this situation, two or more heads are almost always better than one. However, exams are different matter entirely. Each student is expected to work alone and with only the tools allowed for the exam. Any student caught cheating on an exam will receive a zero on that exam. A second offence will result in the student receiving an F for the course and being dropped from the course. Any student caught cheating on the final exam will receive an F for the course. There will be no exceptions to this rule.

**CLASSROOM BEHAVIOR:** Be aware that class is over when I dismiss it, and not before. Any student who repeatedly disrupts my class will be asked to leave. Some of the things that I consider “disruptions” include, but are not limited to, packing your things before the end of class, ringing cell phones, talking while I am talking, making a late “entrance”, and so on. Texting while in class is also a disruption. **No tobacco products of any kind may be used at any time during class.** Chronic offenders will be banned from the classroom. It is phenomenally difficult to pass my class if you cannot attend on test days.

***Do NOT use texting abbreviations in any correspondence with me.***

#### **4.1.1.1. Diversity Statement**

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

#### **4.1.1.2. Disabilities Statement**

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

#### **4.1.1.3. Non-Discrimination Statement**

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

#### **4.1.1.4 Title IX Pregnancy Accommodations Statement**

If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student’s responsibility to work with the instructor to arrange accommodations. Contact Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email [cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

#### **4.1.1.5 OPTIONAL STATEMENT - Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: <https://www.southplainscollege.edu/campuscarry.php>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses.

Report violations to the College Police Department at 806-716-2396 or 9-1-1.

## Spring 2018 - College Algebra Tentative Schedule

Week	Lesson
1	WELCOME!
	1.1 Solving Equations
2	1.4 Inequalities & 1.5 Compound Inequalities
	1.6 Absolute Value Equations and Inequalities
3	4.3-4.8 Factoring
	5.5 Solving Rational Equations & 6.6 Solving Radical Equations
4	7.3 The Complex Numbers & 7.4 Quadratic Equations, Functions, and Zeros
	<b>Exam 1</b>
5	2.2 Functions and Graphs & 2.3 Finding Domain and Range
	2.5 Linear Functions: Graphs and Slope & 2.6 More on Graphing Linear Equations & 2.7 Finding Equations of Lines
6	7.5 Analyzing Graphs of Quadratic Functions
	8.1 Polynomial Functions & 8.2 Graphing Polynomial Functions
7	8.3 Polynomial Division & 8.4 Zeros of Polynomial Functions
	8.5 Rational Functions
8	8.6 Polynomial Inequalities
	<b>Exam 2</b>
9	9.1 The Composition of Functions & 9.2 Inverse Functions

		9.3 Exponential Functions
10		9.4 Logarithmic Functions & 9.5 Properties of Logarithmic Functions
		9.6 Solving Exponential & Logarithmic Equations
11		9.7 Applications: Growth & Compound Interest
		<b>Exam 3</b>
12		3.2 Solving by Substitution & 3.3 Solving by Elimination
		3.5 Systems of Equations in Three Variables
13		10.1 Matrices
		3.7 Systems of Inequalities
14		11.2 The Circle & 11.4 Nonlinear Systems of Equations & Inequalities
		Final Exam Review
16		<b>Final Exam – Monday, December 9 – 8:00am – 10:00am</b>