# South Plains College
## Math 1314 – College Algebra (3:3:1)
## Course Syllabus
## Fall 2016

**Instructor:** Diane Eagle
**Office:** M106 (mathematics building)
**Phone:** 806-716-2736
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**Office Hours:**

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| 1:00 – 2:30 | 9:30 – 10:00<br>2:15 – 2:45 | 1:00 – 2:30 | 9:30 – 10:00<br>2:15 – 2:45 | 9:00 – 12:00 |

**Prerequisites:** 2 years of high school algebra, successful completion of MATH 0320 (a C or higher) or TSI compliance.

**Textbook:** <u>College Algebra, 6<sup>th</sup> edition,</u> Blitzer, Pearson-Prentice Hall, 2014

**Supplies:** Pencils, paper, straightedge, and graph paper. **Only a basic non-graphing calculator (such as a TI-30) will be allowed in class.** Calculators on cell phones, graphing calculators, or other electronic devices will **NOT** be allowed during tests or in-class assignments. Arrive prepared to take notes every day.

**Course Description:** A standard course in college algebra. Quadratic equations; ratio and proportion; variation; binomial theorem; inequalities; complex numbers; theory of equations; determinants and matrices

**Course Purpose/Rational/Goal:** The purpose of the course is to provide a fundamental background in algebra to meet the mathematics requirement for the core curriculum and to provide a basis for further study in mathematics.

**Student Learning Outcomes/Competencies:**
Upon completion of this course and receiving a passing grade, the student will be able to:
1. Solve and graph problems involving linear (1.2, 1.3, 2.1, 2.2, 2.3, 2.4) quadratic (1.5, 1.6, 3.1) exponential (4.1, 4.4) and logarithmic (4.2, 4.3, 4.4) functions
2. Solve and graph linear, quadratic, and rational inequalities (1.7, 3.6, 5.5)
3. Identify and simplify complex numbers (1.4)
4. Apply midpoint, distance, and circle formulas (2.8)
5. Analyze and graph polynomial functions (3.2, 3.3, 3.4)
6. Analyze and graph rational functions (3.5)
7. Create and solve systems of equations with algebraic techniques (5.1, 5.2, 5.4) with matrix techniques (6.1) and with determinants (6.5)
8. Apply the Binomial Theorem to expand binomials of higher degree (8.5)

**Core Objectives:**
Communication Skills:
- Develop, interpret, and express ideas through written communication
- Develop, interpret, and express ideas through oral communication
- Develop, interpret, and express ideas through visual communication

Critical Thinking:
- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

Empirical and Quantitative Competency Skills:
- Manipulate and analyze numerical data and arrive at an informed conclusion
- Manipulate and analyze observable facts and arrive at an informed conclusion

**Course Requirements:** To maximize the potential to complete this course, a student should attend all class and laboratory meetings, take notes and participate in class, complete all homework assignments and examinations including final examinations.

**Course Evaluation:** Your final grade will be determined by the average of 4 major tests (400 points) the comprehensive final exam (100 points) and daily homework assignments (100 points.) A total of 600 points are possible. The number of points earned will follow the grading scale below:

**Grading Scale:**

| | | | |
|---|---|---|---|
| A | 90 to 100 | 537 to 600 points |
| B | 80 to 89 | 477 to 536 points |
| C | 70 to 79 | 417 to 476 points |
| D | 60 to 69 | 357 to 416 points |
| F | Below 60 | 0 to 356 points |

**Exams**: Dates for the 4 major tests and comprehensive final exam are listed on the calendar. **There are NO makeup tests!** If you miss one of the 4 major tests, your final exam will count twice to replace the missing grade. A second missed test will be averaged as a zero. The final exam grade (if higher) will also replace the lowest major exam grade; however, if the final exam is lower than any of the 4 major exam grades, then it will only count once in the course average.

**Homework Assignments:** Homework is assigned from each section covered, and time will be available at the beginning of each class to ask questions. Consistently working problems reinforces the skills and concepts presented, and is essential for success in this course. In addition, many test questions come directly from the assigned problems and examples worked in class. Homework assignments will be collected the following class period. All steps/work must be shown and the answer clearly indicated to receive credit. Do not submit "answer sheets." In the event of an absence, you must email your assignment to me on or before the day it is due. **Absolutely NO late homework assignments will be accepted.** Daily grades comprise 100 points, or approximately 17%, of your overall average.

**Tutoring**: Students can obtain free tutoring in room M116 in the math building on the South Plains Campus in Levelland or in Building 2 at the Reese Center. Tutoring schedules will be posted on campus. Please remember to sign in when you seek the help of a tutor in each of these places.

**Bonus Points:**  Occasionally, opportunities for extra points can be found on Blackboard, or a bonus problem may be assigned to complete outside of class.  Students will have the opportunity to make corrections on **one** test (final exam not included) of their choice, for up to 50% of the points missed.  Corrections are due the class period after the test is handed back and must be turned in on a separate sheet of paper with the exam.

**Course Specific Instructions:**  Videotapes of many topics are available in room M116 in the math building at the Levelland campus.  These tapes can be viewed in the lab, or checked out and taken home for viewing.  A link is provided on Blackboard for online viewing.  Additional free tutorial videos are also available at the following sites: http://patrickjmt.com/, http://www.mathtv.com/, and http://www.khanacademy.org/.

**Attendance Policy:**  Attendance will be taken every class period.  Students who arrive late, leave early, sleep during class, or fail to sign the attendance sheet may be counted absent. Whenever absences become excessive and, in the instructor's opinion, minimum course objectives cannot be met due to absences, the student will be withdrawn from the course. **Any student who misses 3 consecutive classes or exceeds 5 absences throughout the semester will be administratively dropped and receive a grade of X or F.** Students wishing to drop this class must see the registrar by Thursday, November 17, 2016 to officially withdraw and receive a grade of W.

**Classroom Civility**:  Students are expected to be respectful of their fellow classmates and maintain a classroom environment that is conducive to learning. Turn off all cell phones and other electronic devices **before** entering the classroom. The instructor reserves the right to ask a student to leave if his/her cell phone is left on and disrupts the class. Refrain from using offensive language, talking loudly or off-topic, working on outside assignments, chewing tobacco products, or otherwise being disruptive in class. Food and/or drinks are NOT allowed in the classroom.

**Academic Honesty**:  Students are expected to uphold the ideas of academic honesty. Academic dishonesty includes, but is not limited to, cheating on tests, collaborating with another student during a test, copying another student's work, using materials not authorized, and plagiarism. **Use of a graphing calculator, cell phone, or other electronic device during any in-class assignment or exam will result in a grade of zero.**  Leaving the classroom during an exam will not be permitted. Students who do not follow the academic honesty policy will receive a grade of zero for the assignment, and may be dropped from the course with an F, or face possible suspension.

**Disability 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.

**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.

**PLEASE NOTE:** Texas SB 11 (Campus Concealed Carry) does NOT go into effect for community colleges until August 1, 2017

# MATH 1314.211 – FALL 2016

| Week | | Tuesday | | Thursday |
|---|---|---|---|---|
| **1** | Aug. 30 | Syllabus <br> Chapter P Review | Sep. 1 | Prerequisites evaluation |
| **2** | Sep. 6 | 1.2 | Sep. 8 | 1.3 |
| **3** | Sep. 13 | 1.4 | Sep. 15 | 1.5 |
| **4** | Sep. 20 | 1.6 | Sep. 22 | 1.7 |
| **5** | Sep. 27 | 2.1, 2.2 | Sep. 29 | **TEST 1** |
| **6** | Oct. 4 | 2.3, 2.4 | Oct. 6 | 2.6, 2.7 |
| **7** | Oct. 11 | 2.8 | Oct. 13 | 3.1, 3.3 |
| **8** | Oct. 18 | 3.2, 3.4 | Oct. 20 | **TEST 2** |
| **9** | Oct. 25 | 3.5 | Oct. 27 | 3.6 |
| **10** | Nov. 1 | 4.1, 4.2 | Nov. 3 | 4.3 |
| **11** | Nov. 8 | 4.4 | Nov. 10 | **TEST 3** |
| **12** | Nov. 15 | 5.1, 5.2 | Nov. 17 | 5.4, 5.5 |
| **13** | Nov. 22 | 6.1 | Nov. 24 | **THANKSGIVING** |
| **14** | Nov. 29 | 6.5 | Dec. 1 | **TEST 4** |
| **15** | Dec. 6 | 8.5 | Dec. 8 | **REVIEW** |
| **16** | Dec. 13 | **NO CLASS** | Dec. 15 | **FINAL 1:00 pm to 3:00 pm** |

**\*\*\*Last day to drop is Thursday, November 17, 2016\*\*\***