South Plains College College Algebra (Dual-Credit) – Math 1314.364-367 Course Syllabus Spring 2018

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Textbook: Blitzer, R. (2018). College Algebra, 7th Edition. New Jersey: Pearson Prentice Hall. ISBN 978-0-13-446916-4 *The hardcopy is optional. MyMathLab will be required.*

Supplies: You will need pencils, paper, and class notes. Graphing Calculators are required (I recommend a TI-84 series calculator). Calculators on cell phones or other electronic devices will not be allowed in this class. Access to MyMathLab will be required for doing homework.

Core Curriculum: This course satisfies the following 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

Expected Learning Outcomes: At the end of this course, students should be able to competently perform the following:

- 1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
- 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
- 3. Apply graphing techniques.
- 4. Evaluate all roots of higher degree polynomial and rational functions.
- 5. Recognize, solve and apply systems of linear equations using matrices.

| Grading: | | Grading Scale: | Α | 90-100 |
|-------------------|-----|----------------|---|--------|
| Homework/Quizzes: | 20% | _ | В | 80-89 |
| Exams (4): | 60% | | С | 70-79 |
| Final Exam: | 20% | | D | 60-69 |
| | | | F | 0-59 |

A grade of C (70%) or better is required to advance to the next course. This course and its grade will be recorded on your official transcript for SPC.

***Note: Students must justify answers or show work on all problems to receive full credit.

Class Attendance: Students are expected to be in class and prepared for the day's lesson. Students are responsible for the material covered in this course, whether or not they attend class each day. Students that are planning to be absent due to doctor's appointments, school related activities, or other such events must contact me before the absence, with documentation of the coming event to arrange any necessary make-up work. Students that are absent without notice due to illness or other emergency must contact me by email as soon as possible or talk to me in person before classes begin on the next day back to school to arrange any make-up work. Students that do not contact me regarding their absences forfeit their opportunity to make up any work.

Late work: Late work is not accepted. If you do not turn in an assignment on time, you will receive a zero.

Homework: MyMathLab will be used in this course. Homework is expected to be done daily. Written assignments may also be given as necessary where long-form answers are required. Any long-form answers must have all work shown in an organized fashion, and all answers must be given in complete, grammatically correct sentences that convey a logical thought process and answer the question or address the issue. Late work is not accepted. The online homework is NOT optional. Your online homework grade will be your homework grade for the semester. I will drop approximately 3 homework grades at the end of the semester. You are expected to either print out each homework assignment or copy down the problems in a spiral. You are also expected to keep all of your homework (problem, work, and boxed answers) organized and neat in your class binder/folder/spiral. Most Fridays will be homework days. On these days, unless otherwise informed, you may bring a laptop or tablet to work on your homework. However, I fully encourage you to print out your homework anyway prior to coming to class everyday. This is for two main reasons: First, if the internet is running slow or is down, you still need access to your homework. Second, if we finish a lecture early, you will be given time to work on homework even if it is not a Friday.

Follow these steps for a painless registration procedure:

Before you start, you will need:

- A student's access code is found in your MyMathLab Student Access Kit that comes with the book, or you can purchase online an access code using a credit card.
- The course ID number will be given to you the first day of class. Course ID number for your course:
 - TRF 2nd Period: groves54412
 - MWF 3rd Period: groves58244
 - TRF 4th Period: groves21532
 - MWF 7th Period: groves32465
- A valid email address that you check on a regular basis. I highly recommend using your SPC e-mail. You must also register with your full legal name (the same name that shows up on my roster). Do NOT use nick names, name abbreviations, etc.
- SPC Zip Code: 79336

See attached sheet for more details on getting registered into MyMathLab. You are expected to be registered and actively working on your homework assignments by the end of the first week of SPC classes (Jan. 19th).

It is YOUR responsibility to keep up with the online homework. I will not remind you every day to do your homework assignments that have been posted. You can always assume if we have done new material, you have new homework assignments. There are no homework extensions or make-ups.

Quizzes: There are no predefined quizzes for this class. However, I reserve the right to quiz whenever I feel it is necessary. I will usually give at least one day's notice of an upcoming quiz, but not necessarily. Pop quizzes are possible in this class. Quiz grades will count as part of your homework average. **No quiz grades (if there are any) will be dropped.**

Exams: There will be 4 exams and one comprehensive final exam. Tentative dates for the exams are given on the course outline. <u>These dates are subject to change.</u> If for any reason you are unable to take an exam at the designated time, you must contact me *prior* to class time. If this is not possible, then you must contact me as soon as possible to make arrangements to make-up the exam. Make-up exams will be given at the discretion of the instructor. No exam grades will be dropped. However, **if your final exam grade is higher than your lowest test grade, then it will replace your lowest test grade (as well as count for the final exam). You cannot exempt this final!** All exams are expected to be completed in the allotted class time. Exams must be taken in one sitting. Once you leave the room on an exam day, your exam is considered completed and will not be handed back until it is graded.

Extra Credit: Occasionally, bonus questions will be asked on exams. These problems will be approximately the same difficulty level as the rest of the exam's problems, and are offered as an opportunity to pad your exam score. They are not required.

Tutoring: I will be in my classroom every Tuesday and Thursday mornings for tutorials to answer any of your questions. Digital versions of tutorial videos can be viewed on your personal computer on Blackboard, <u>http://spc.blackboard.com</u>. Login using "mvideos" and password "mvideos". Click on Math-Math Videos and locate the appropriate course and topic in which you are interested.

Technology: You are to have all cell phones off and out of sight during class. If caught on your cell phone during class, the phone will be confiscated and will not be returned until the end of class. If repeated offenses occur, you will be sent to speak with the principal. If behavior still continues, you will be asked to drop the course. Furthermore, I offer a bonus to every student who keeps their cell phone out of sight during class. The bonus is determined by drawing a number between 1 and 5. The drawn number is the number of bonus points each student gets on their upcoming exam if they have kept their cell phones off and away for every class. Individual students can lose their bonus for that exam period if caught with their cell phone out without permission during class.

Class Rules:

- Be courteous and respectful at all times.
- Be on time and ready to learn.
- Keep your hands and feet to yourself.
- Use only pencil for all assignments.
- Wait to be dismissed before leaving class. The bell does not dismiss you!!
- Adhere to the requirements of the Student Code of Conduct.

Academic Integrity: Academic dishonesty will not be tolerated. You are expected to uphold the ideas of academic honesty. All work that is graded must be your own. This policy applies to all work attempted in this course. If this policy is violated the student will receive an F for the assignment and will be dropped with an F. For more details on what is considered cheating, see the South Plains College catalog.

If a student is caught cheating on any assignment, the student will receive an automatic 0 on the assignment. If a second infraction occurs, the student will be dropped from the course with an F and not allowed to re-enroll in any future courses with me as the instructor. Any cases of cheating WILL be documented in your permanent school record immediately.

Student Conduct: You are expected to be respectful to others in the classroom. Please assist in maintaining a classroom environment conducive to learning. Any student disrupting the learning environment will be asked to leave and may be dropped from the course.

Disability: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Special 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 Special Services Coordinator. For more information, call or visit the Special Services Office in the Student Services building, 894-9611 ext. 2529.

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability or age.

Diversity: 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.

Disclaimer

The instructor reserves the right to alter any class policies as deemed necessary by the instructor or South Plains College, and will announce any changes in class. If a student has any questions about a change in policy ask the instructor for clarification.

| | College Algebra – Spring 2018 – MWF Classes Tentative Calendar | | | |
|-----|---|---|---------------|--|
| Day | Date | Торіс | Section | |
| М | 8-Jan | REVIEW | P.1-1.2 | |
| W | 10-Jan | REVIEW | P.1-1.2 | |
| F | 12-Jan | REVIEW | P.1-1.2 | |
| М | 15-Jan | HOLIDAY – MLK | | |
| W | 17-Jan | Models/Complex Numbers | 1.3 – 1.4 | |
| F | 19-Jan | Homework Day | | |
| Μ | 22-Jan | Quadratic Equations/Other Basic Equations | 1.5 – 1.6 | |
| W | 24-Jan | Inequalities/Absolute Value/Function Basics | 1.7 – 2.1 | |
| F | 25-Jan | Homework Day | | |
| М | 29-Jan | Function Basics | 2.2, 2.5 | |
| W | 31-Jan | Linear Functions and Slope/Composite Functions | 2.3, 2.4, 2.6 | |
| F | 2-Feb | Homework Day | | |
| М | 5-Feb | Function Inverses/Circles | 2.7 – 2.8 | |
| W | 7-Feb | Quadratic and Polynomial Functions | 3.1 - 3.2 | |
| F | 9-Feb | Review Day | | |
| М | 12-Feb | Exam 1 | Ch 1 & 2 | |
| W | 14-Feb | Finding Zeros of Higher Order Polynomials | 3.3 - 3.4 | |
| F | 16-Feb | Homework Day | | |
| М | 19-Feb | HOLIDAY – President's Day | | |
| W | 21-Feb | Rational Functions/Polynomial and Rational Inequalities | 3.5 - 3.6 | |
| F | 23-Feb | Homework Day | | |
| М | 26-Feb | Exponential and Logarithmic Functions | 4.1 – 4.3 | |
| W | 28-Feb | Solving Exponential and Logarithmic Equations | 4.4 - 4.5 | |
| F | 2-Mar | Review Day | | |
| М | 5-Mar | Systems of Linear Equations | 5.1 – 5.2 | |
| W | 7-Mar | Exam 2 | Ch. 3 & 4 | |
| F | 9-Mar | Homework Day | | |
| M-F | Mar 12- 16 | SPRING BREAK | | |
| М | 19-Mar | Systems of Linear Equations (augmented matrices) | 6.1 – 6.2 | |
| W | 21-Mar | Determinants/Cramer's Rule | 6.5 | |
| F | 23-Mar | Homework Day | | |
| М | 26-Mar | Partial Fraction Decomposition | 5.3 | |
| W | 28-Mar | Nonlinear Systems/Systems of Inequalities | 5.4 – 5.5 | |
| F | 30-Mar | GOOD FRIDAY – Bad Weather Day | | |
| М | 2-Apr | Review Day | | |
| W | 4-Apr | Exam 3 | Ch. 5 & 6 | |
| F | 6-Apr | Homework Day | | |
| М | 9-Apr | Sequences | 8.1 | |
| W | 11-Apr | Arithmetic Sequences and Series | 8.2 | |
| F | 13-Apr | Homework Day | | |
| М | 16-Apr | Geometric Sequences and Series | 8.3 | |

| W | 18-Apr | The Binomial Theorem | 8.5 |
|-----|---------|-----------------------|-------|
| F | 20-Apr | Review Day | |
| М | 23-Apr | Homework Day | |
| W | 25-Apr | Exam 4 | Ch. 8 |
| F | 27-Apr | FINAL EXAM REVIEW | |
| М | 30-Apr | FINAL EXAM REVIEW | |
| W | 2-May | FINAL EXAM REVIEW | |
| F | 4-May | FINAL EXAM REVIEW | |
| M-F | May 7 - | Final Exam | |
| | 11 | Date and Location TBA | |

| | College Algebra – Spring 2018 – TRF Classes Tentative Calendar | | | |
|-----|---|---|---------------|--|
| Day | Date | Торіс | Section | |
| Т | 9-Jan | REVIEW | P.1-1.2 | |
| R | 11-Jan | REVIEW | P.1-1.2 | |
| F | 12-Jan | REVIEW | P.1-1.2 | |
| Т | 16-Jan | Models/Complex Numbers | 1.3 – 1.4 | |
| R | 18-Jan | Quadratic Equations/Other Basic Equations | 1.5 – 1.6 | |
| F | 19-Jan | Homework Day | | |
| Т | 23-Jan | Inequalities/Absolute Value/Function Basics | 1.7 – 2.1 | |
| R | 25-Jan | Function Basics | 2.2, 2.5 | |
| F | 26-Jan | Homework Day | | |
| Т | 30-Jan | Linear Functions and Slope/Composite Functions | 2.3, 2.4, 2.6 | |
| R | 1-Feb | Function Inverses/Circles | 2.7 – 2.8 | |
| F | 2-Feb | Homework Day | | |
| Т | 6-Feb | Review Day | | |
| R | 8-Feb | Exam 1 | Ch. 1, 2 | |
| F | 9-Feb | Review/Homework Day | | |
| Т | 13-Feb | Quadratic and Polynomial Functions | 3.1 - 3.2 | |
| R | 15-Feb | Finding Zeros of Higher Order Polynomials | 3.3 - 3.4 | |
| F | 16-Feb | Homework Day | | |
| Т | 20-Feb | Rational Functions/Polynomial and Rational Inequalities | 3.5 - 3.6 | |
| R | 22-Feb | Exponential and Logarithmic Functions | 4.1 – 4.3 | |
| F | 23-Feb | Homework Day | | |
| Т | 27-Feb | Solving Exponential and Logarithmic Equations | 4.4 - 4.5 | |
| R | 1-Mar | Review Day | | |
| F | 2-Mar | Homework Day | | |
| Т | 6-Mar | Exam 2 | Ch. 3 & 4 | |
| R | 8-Mar | Homework Day | | |
| F | 9-Mar | Homework Day | | |
| M-F | Mar 12- 16 | SPRING BREAK | | |
| Т | 20-Mar | Systems of Linear Equations | 5.1 – 5.2 | |
| R | 22-Mar | Systems of Linear Equations (augmented matrices) | 6.1 – 6.2 | |
| F | 23-Mar | Homework Day | | |
| Т | 27-Mar | Determinants/Cramer's Rule | 6.5 | |
| R | 29-Mar | Partial Fraction Decomposition | 5.3 | |
| F | 30-Mar | GOOD FRIDAY – Bad Weather Day | | |
| Т | 3-Apr | Nonlinear Systems/Systems of Inequalities | 5.4 – 5.5 | |
| R | 5-Apr | Review Day | | |
| F | 6-Apr | Homework Day | | |
| Т | 10-Apr | Exam 3 | Ch. 5 & 6 | |
| R | 12-Apr | Sequences/Arithmetic Sequences and Series | 8.1 – 8.2 | |
| F | 13-Apr | Homework Day | | |
| Т | 17-Apr | Geometric Sequences and Series | 8.3 | |

| R | 19-Apr | The Binomial Theorem | 8.5 |
|-----|---------|-----------------------|-------|
| F | 20-Apr | Homework Day | |
| Т | 24-Apr | Review Day | |
| R | 26-Apr | Exam 4 | Ch. 8 |
| F | 27-Apr | FINAL EXAM REVIEW | |
| Т | 1-May | FINAL EXAM REVIEW | |
| R | 3-May | FINAL EXAM REVIEW | |
| F | 4-May | FINAL EXAM REVIEW | |
| M-F | May 7 - | Final Exam | |
| | 11 | Date and Location TBA | |