

South Plains College
Mathematics Department
Intermediate Algebra – MATH 0320
Course Syllabus
Fall 2017

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Office Hours: by appointment.

Course Description: (3:3:1) Prerequisite: MATH 0315 or one year of high school algebra. This course is designed for the student who needs MATH 1314 or 1324. It includes a study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a specific emphasis on linear and quadratic expressions and equations. Time in a math lab is required. This course will not satisfy graduation requirements. Semester Hours: 3 Lecture Hours: 3 Lab Hours: 1 Pre-requisite: MATH 0315 or one year of high school algebra. (copied from the current SPC catalog)

Core Objectives:

Communication Skills: Effective development, interpretation, and expression of ideas through written, oral, and visual communication.

- 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: Creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.

- 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: The manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

- Manipulate and analyze numerical data and arrive at an informed conclusion.
- Manipulate and analyze observable facts and arrive at an informed conclusion.

Course Objectives: Successful completion of this course should reflect mastery of the following objectives. Chapter and section numbers are indicated in parentheses.

1. Define, represent, and perform operations on real and complex numbers. (9.9)
2. Recognize, understand, and analyze features of a function. (8.3, 8.4)
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, rational, and radical expressions. (6.1, 6.2, 6.3, 6.4, 6.5, 7.1, 7.2, 7.3, 7.4, 7.5, 9.1, 9.2, 9.4, 9.5, 9.6)
4. Identify and solve absolute value, polynomial, rational, and radical equations: (6.6, 7.7, 8.7, 9.8, 10.1, 10.2)
5. Identify and solve absolute value and linear inequalities. (8.6, 8.7)
6. Model, interpret, justify mathematical ideas and concepts using multiple representations. (6.7, 7.8, 8.2, 8.5, 9.8)

TSI: The Texas Success Initiative (TSI) 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, such as scores on ACT, SAT, TAKS or meet one of the TSI exemptions listed below. 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.

If testing indicates a need for building certain skills in any or all of the skill areas, students will be required to enroll in and successfully complete the developmental programs. In addition, certain college-level courses in the core curriculum are restricted with enrollment allowed for only those students who have met the state-specified placement test standards. The student must be compliant with TSI requirements before the student is

awarded an associate degree, certain certificates of proficiency, or allowed to transfer into junior or senior-level courses at a public university. (copied from the current SPC catalog)

Textbook: The textbook referenced for this course is the following:

Sullivan, M., Struve, K. R., & Mazarella, J. (2010). Elementary & intermediate algebra third edition. New Jersey: Pearson Prentice Hall. ISBN 978-0-321-88011-6.

Attendance: Attendance and effort are the most important activities for success in this course. Class attendance may be taken at any time during the class period, so please do not be late or leave early. You may be dropped from this course with a grade of X or F if you are absent four consecutive classes or if you exceed six absences throughout the semester. Be on time and turn off any cell phones or pagers before entering the classroom.

Assignments & Grading: Homework assignments will be made at each class meeting. Quizzes may be administered at any time. Keep all class materials (notes, handouts, homework, quizzes, and exams) organized in a notebook (3-ring binder). These materials are subject to be turned in for grading at any time. Please make certain all materials accompany you to each class meeting. No late assignments will be accepted. Daily work (homework, quizzes, notebook) will count for 20% of the final grade, while all exams count for 80% of the final grade. Expect four major exams (15% each) throughout the course and a cumulative final exam (20%) at the end of the course. Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

Supplies: You will need pencils, a scientific calculator, notebook paper, graph paper, and a 3-ring binder. Calculators on cell phones or other electronic devices with a computer algebra system will not be allowed during testing.

Supplementary Course Information & Tutoring: Blackboard is the online course management system that will be utilized for this course. This course syllabus, as well as any class handouts can be accessed through Blackboard. Login at <http://spc.blackboard.com>. The user name and password should be the same as the MySPC and SPC email.

User name: first initial, last name, and last 4 digits of the Student ID

Password: Original CampusConnect Pin No. (found on SPC acceptance letter)

Free tutoring is available in Building 2 at the Reese Center. Check Blackboard often for the latest tutoring schedule and course supplements (handouts, online practice quizzes, additional notes, sample problems for practice, etc.).

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 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. For more information, call or visit the Disability Services Office in the Student Health & Wellness Office, 806-716-2577.

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.

Campus Concealed Carry - 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, please refer to the SPC policy at: http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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.

Intermediate Algebra Tentative Course Outline

MATH 0320.208 (TR 5:20 – 6:55pm, RC225)

Fall 2017

| Week | Day | Date | Lesson / Tentative Assignment |
|------|----------|--------------|-------------------------------------------------------------------------------------------------------|
| 1 | Tuesday | August 29 | <i>Assignment 1:</i> [6.1,6.2,6.3] GCF, Grouping and Factor Trinomials |
| | Thursday | August 31 | <i>Assignment 2:</i> [6.4] Factoring Special Products |
| 2 | Tuesday | September 5 | <i>Assignment 3:</i> [6.6,6.7] Solving Equations by Factoring & Modeling |
| | Thursday | September 7 | <i>Assignment 4:</i> [8.7] Solving Linear & Absolute Value Equations |
| 3 | Tuesday | September 12 | <i>Assignment 5:</i> [2.8,8.7] Solving Linear & Abs. Value Inequalities |
| | Thursday | September 14 | <i>Assignment 6:</i> Review for Exam 1 |
| 4 | Tuesday | September 19 | Exam 1 (15%) |
| | Thursday | September 21 | <i>Assignment 7:</i> [7.1,7.2] Simplifying, Multiplying & Dividing Rational Expressions |
| 5 | Tuesday | September 26 | <i>Assignment 8:</i> [7.3,7.4] LCD & Adding Rational Expressions |
| | Thursday | September 28 | <i>Assignment 9:</i> [7.5] Add and Subtract Rational Expressions |
| 6 | Tuesday | October 3 | <i>Assignment 10:</i> [7.7,7.8] Rational Equations |
| | Thursday | October 5 | <i>Assignment 11:</i> [8.1-8.4] Relations, Functions & Their Graphs |
| 7 | Tuesday | October 10 | <i>Assignment 12:</i> Review for Exam 2 |
| | Thursday | October 12 | Exam 2 (15%) |
| 8 | Tuesday | October 17 | <i>Assignment 13:</i> [3.3,3.4] Slopes & Lines |
| | Thursday | October 19 | <i>Assignment 14:</i> [3.5,3.6] Point-slope form of a line |
| 9 | Tuesday | October 24 | <i>Assignment 15:</i> [4.1,4.2,4.3] Solving Systems of Equations |
| | Thursday | October 26 | <i>Assignment 16:</i> [4.4,4.5] Modeling Systems of Equations |
| 10 | Tuesday | October 31 | <i>Assignment 17:</i> [4.6] Graphing Systems of Inequalities |
| | Thursday | November 2 | <i>Assignment 18:</i> Review for Exam 3 |
| 11 | Tuesday | November 7 | Exam 3 (15%) |
| | Thursday | November 9 | <i>Assignment 19:</i> [9.1,9.2,9.3] Simplifying Radical Expressions |
| 12 | Monday | November 13 | <i>Online registration opens for the Winter Interim and Spring 2018 at 8:00am</i> |
| | Tuesday | November 14 | <i>Assignment 20:</i> [9.4,9.5] Add, Subtract, Multiply Radical Expressions |
| | Thursday | November 16 | <i>Assignment 21:</i> [9.6] Rationalize Radical Expressions <i>Last day to drop a class at SPC</i> |
| 13 | Tuesday | November 21 | <i>Assignment 22:</i> [9.8] Radical Equations |
| | Thursday | November 23 | <i>Thanksgiving Holiday</i> |
| 14 | Tuesday | November 28 | Exam 4 (15%) |
| | Thursday | November 30 | <i>Assignment 23:</i> [9.9] Complex Number System |
| 15 | Tuesday | December 5 | <i>Assignment 24:</i> [10.1,10.2] Quadratic equations |
| | Thursday | December 7 | <i>Assignment 25:</i> Review for comprehensive final exam |
| 16 | Tuesday | December 12 | Final Exam (20%) from 5:30-7:30pm |