# South Plains College Department of Mathematics and Engineering Intermediate Algebra – Math 0320.001 Spring 2017 Course Syllabus

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#### Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
12:30-1:00	9:00-11:00	12:30-1:00	9:00-11:00	9:00-12:00

**Textbook:** *Elementary and Intermediate Algebra*, Sullivan/Struve/Mazzarella, 3<sup>rd</sup> Edition, Prentice Hall/Pearson Education. ISBN 978-0-321-88011-6. Older versions of the textbook are acceptable. Please do not try to use an electronic device for a book. If you purchase a loose leaf book, you should secure a binder for the book. Your homework will be in handout form, but additional problems, as well as additional explanations, will be in the book.

**Course Description:** MATH 0320 (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 factoring, fractions, linear equations in one unknown, graphs, systems of linear equations, exponents, radicals, and quadratic equations. Time in a math lab is required. This course will not satisfy graduation requirements.

**Supplies:** You will need a 3-ring binder, notebook paper, graph paper, a 3-hole punch, and pencils. You will be allowed to use a scientific calculator. Graphing calculators and phone/tablet calculators will not be allowed.

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

Attendance Policy: Attendance and effort are crucial for success in this course. Record of your attendance will be maintained throughout the semester. Leaving class early and being tardy will be recorded as ½ of an absence. Sleeping in class will also be recorded as an absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive days or if you accrue five absences for any reason throughout the semester. Absences are not classified as 'excused' or 'unexcused'.

#### **Grading Policy:**

Homework/Quizzes/Lab Assignments/Binder Checks 20% Unit Exams and Comprehensive Final 80%

#### Homework/Quizzes/Lab Assignments/Binder Checks:

- Homework assignments will be assigned during each class session and may be collected the following
  class period. Work the problems early enough to seek help if needed. You should expect to spend as
  much time outside of class as you do in class practicing homework problems and studying. Absolutely
  no late homework assignments will be accepted.
- Quizzes will be given during almost all class periods to demonstrate that you have practiced the skills from the previous class/classes. Make-up quizzes will not be given.

- Periodically, lab assignments will be given, completed, and turned in during a class period. If absent, these assignments may be made up by coming to my office, going over the lecture, and completing the assignment. You will be given one week to make-up the assignment, otherwise a zero will be given.
- All students will keep a binder which will be used as a reference and study guide. Your binder should be brought to class every day! The binder will be checked twice randomly by the instructor during the semester. Neatness and organization of a 3-ring binder are important. The binder should be arranged in the following manner:
  - o Section 1: Syllabus
  - Section 2: Notes for each section covered—Handouts to use to take notes are posted on Blackboard. It is your responsibility to print the handouts. If you are absent, it is your responsibility to get the notes from a classmate.
  - Section 3: Homework
  - o Section 4: Quizzes/Lab Assignments
  - o Section 5: Reviews (Practice Exams)/Unit Exams

These pages will be kept in chronological order.

**Exams**: There will be 4 unit exams given and a comprehensive final. Dates for the exams are on the course calendar. If for any reason you are going to miss an exam, you must contact me prior to class time. Make-up exams will be given at the discretion of the instructor. Once you begin an exam, you will not be able to leave the classroom until the exam is submitted for grading.

### **Grading Scale:**

A 90-100

B 80-89

C 70-79

D 60-69

F 59 or below

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.

# **Learning Outcomes for Intermediate Algebra (MATH 0320)**

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 linear equation and a function. (8.3, 8.4 including topics from 3.3, 3.4 and 3.5)
- 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)
- 7. Connect and use multiple strands of mathematical situations and problems, as well as in the study of other disciplines. (The word problems in Chapters 6, 7, 8, 9, and 10.)

## **Student Responsibilities and Expectations:**

- 1. Come to class on time and prepared to learn. (Pencils, homework, notebook, calculator)
- 2. Read the syllabus.
- 3. Take notes, participate in class, and complete course assignments early enough to seek help if needed.
- 4. Food and drink are not allowed in class, with the exception of bottled water.
- 5. Cell phones and any other electronic devices must be silenced and put away before entering the classroom. Use of these devices during class will result in a zero for that day's quiz, homework, or exam.

#### **Resources:**

Blackboard is the online course management system that will be used for this course. The course syllabus, handouts for notes, reviews, practice exams, as well as any other class handouts can be accessed through Blackboard. Login at http://southplainscollege.blackboard.com. The user name and password should be the same as the MySPC and SPC email. Check Blackboard often for the latest tutoring schedule and course supplements.

User name: first initial, last name, and last 4 digits of the Student ID Password: Original Campus Connect Pin No. (found on SPC acceptance letter)

- There are videos lectures available that can be viewed on YouTube. These videos do not replace class meetings, but can be used as supplemental material for students' use. The links are:
   MATH 0310: <a href="http://www.youtube.com/playlist?list=PLXbDWrtfFWZHF4E-87GcKkxftlSGa77HM">http://www.youtube.com/playlist?list=PLXbDWrtfFWZEpnf-1uxFc3JL7RgftvXMn</a>
  - MATH 0315: <a href="http://www.youtube.com/playlist?list=PLXbDWrtfFWZEpnf">http://www.youtube.com/playlist?list=PLXbDWrtfFWZEpnf</a> <a href="http://www.youtube.com/playlist?list=PLXbDWrtfFWZFtPF6aDQbb7Fe7pKZfOMB8">http://www.youtube.com/playlist?list=PLXbDWrtfFWZFtPF6aDQbb7Fe7pKZfOMB8</a>
- Free tutoring is available in M116 on the Levelland campus. Hours for the tutors will be posted by the door of M116 and I will also post them on Blackboard.
- I am available to help you! Feel free to come by during my office hours or email me at <a href="mailto:kthompson@southplainscollege.edu">kthompson@southplainscollege.edu</a>.
- Websites that contain helpful videos: patrickjmt.com khanacademy.com

**Religious Holy Days**: In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code. (copied from current South Plains College catalog)

**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.

**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 Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

**Tentative Course Schedule for Monday/Wednesday Classes** 

Day	Date	Topic Covered	Assignment
Mon	Jan 16	Martin Luther King Holiday	
Wed	Jan 18	2.2, 2.3, 8.7A Linear and Absolute Value Equations	Assignment 1
Mon	Jan 23	8.6 Compound Inequalities	Assignment 2
		8.7B Absolute Value Inequalities	
Wed	Jan 25	6.1 Greatest Common Factor	Assignment 3
		6.2 Factoring Trinomials	
		6.3 Factoring Trinomials	
Mon	Jan 30	6.1-6.3 Factoring Practice	Assignment 4
Wed	Feb 1	Feb 1 6.1 Factoring by Grouping	
		6.4 Factoring Special Products	
Mon	Feb 6	6.5 Summary of Factoring Techniques	Assignment 6
Wed	Feb 8	Feb 8 6.6 Solving Polynomial Equations by Factoring	
		Review 1	Review 1
Mon	Feb 13	Exam 1	
Wed	Feb 15	7.1 Simplifying Rational Expressions	Assignment 8
		7.2 Multiplying and Dividing Rational Expressions	
Mon	Feb 20	7.3 Adding and Subtracting Rational Expressions with a Common	Assignment 9
		Denominator	
		7.4 Finding the Least Common Denominator	
Wed	Feb 22	7.5 Adding and Subtracting Rational Expressions	Assignment 10
Mon	Feb 27 7.7 Solving Rational Equations		Assignment 11
		Review 2	Review 2
Wed	Mar 1	Exam 2	
Mon	Mar 6	8.2 Relations	Assignment 12
		8.3 Functions	
		8.4 Functions and their Graphs	
Wed	Mar 8	3.3 Slope	Assignment 13
		3.4 Slope-Intercept Form of a Line	
		Spring Break (March 13-17)	
Mon	Mar 20	3.5 Point-Slope Form of a Line	Assignment 14
		8.4 Functions and Their Graphs	
Wed	Mar 22	Review 3	Review 3
Mon	Mar 27	Exam 3	
Wed	Mar 29	ar 29 9.1 Square Roots	
		9.2 nth Roots and Rational Exponents	
Mon	Apr 3	9.4 Simplifying Radical Expressions	Assignment 16
	-	9.5 Adding, Subtracting and Multiplying Radical Expressions	
Wed	Apr 5	9.6 Rationalizing Radical Expressions	Assignment 17
		9.9 The Complex Number System	
Mon	Apr 10	9.8 Solving Radical Equations	Assignment 18
Wed	Apr 12	Review 4	Review 4
Mon	Apr 17	Easter Holiday	
Wed	Apr 19	Exam 4	
Mon	Apr 24 10.1 Solving Quadratics Equations by the Square Root Property and		Assignment 19
	'	Completing the Square	
Wed	Apr 26	10.2 Solving Quadratic Equations by the Quadratic Formula	Assignment 20
	Apr 27	Last Day to Drop	Ĭ
Mon	May 1	Application Problems from section 6.7, 7.8, 8.5	Assignment 21
Wed	May 3	Review for Comprehensive Final	
Mon	May 8	Final Exam (8:00 am – 10:00 am)	