

MATH 1314 - College Algebra with Support Syllabus Fall 2025

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or by appointment

Students are responsible for knowing the policies of SPC as an institution, and this information is available in the student handbook. Official SPC syllabus statements are found in the student handbook and are linked in the Syllabus section of Blackboard.

Prerequisites: Appropriate score on TSI/TSIA2 exam, passing grade in MATH 0314 or MATH 0324, or suitable designation as “college ready” in mathematics.

Materials: The following materials are required for this course:

Writing: Pencil and paper are required for taking notes during videos, while reading the text, or during class meetings, as well as taking quizzes and exams. Generally, I recommend having a spiral notebook dedicated to notes and solving problems for this class, and a folder for receiving returned/graded work.

Textbook: We will be using College Algebra with Intermediate Algebra by Beecher, Penna, Johnson, Bittinger in this class. You will find a digital copy of this on Blackboard if necessary.

Calculators: You will need a calculator with e^x and \ln keys will be required. These can be found on scientific calculators (inexpensively obtained from Wal-Mart or any other big-box store) or graphing calculators (NOTE: graphing calculators are nice, but they are not required for this course). Online options exist such as Wolfram Alpha (wolframalpha.com), Desmos (www.desmos.com Desmos also has smartphone apps) or GeoGebra (www.geogebra.org). Smartphone apps such as Panecal or ClassCalc are also available for low cost (or free). All are great for doing homework or studying.

Please note that computer software and mobile apps will not be allowed on exams.

Computer: Access to a computer with stable internet connection will be required for viewing course materials as well as using other software (see “Calculators” above and “Blackboard” below). The use of Chromebooks or other computers running the Chrome Operating System (ChromeOS) is discouraged, as ChromeOS is not always compatible with the software we may be using during this course. If you do not have a computer you may find success using mobile devices in some cases, and there are also suitable computers via the computer labs found at every SPC campus.

Blackboard: Blackboard (accessible via the SPC website) will be used as a central hub for the course. Students will find this syllabus, and all other course materials, as well as assignments, grading rubrics, etc. You should be checking Blackboard daily for announcements and updates, and to access the homework. Blackboard utilizes your SPC email, thus you should also be checking your SPC email regularly.

Gradescope: Gradescope is an app that will be used for submitting written work of any form during this course. It will be how assignments are submitted, and how feedback from the grading process is viewed. If you do not have a smartphone or other mobile device, please speak with your instructor as soon as possible.

MyMathLab: We will be using MyMathLab for you to practice concepts and do many assignments. Instructions for registration/login are available on Blackboard. Make sure you have full access as soon as possible.

OneNote: All students have access to Microsoft OneNote by virtue of their enrollment at SPC. OneNote will be used for all classroom activities as a way for students to be able to access classroom lessons, and to facilitate office hours interactions. OneNote does not have to be used by students during the class period, but should be used outside of class as an important resources.

This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

Core Curriculum Objectives:

- Communications skills - to include effective written, oral and visual communication
- Critical thinking skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- Empirical and quantitative competency skills - to manipulate and analyze numerical data or observable facts resulting in informed conclusions.

Student Learning Outcomes: Upon successful completion of this course, students will:

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 will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with the following weights for each assessment type:

Assignments	20%
Exams	60%
Final Exam	20%

(Please note that “Assignments” refers to all graded work that are not exams.)

Class Attendance: A “flipped” classroom is a learning environment in which students work with the material first on their own (via videos, homework and other media), and then come to class ready to ask questions, discuss the material, and work together to solve problems. It is your responsibility to come to class ready to discuss the material scheduled for that day on the course calendar. This means that you have watched the videos on the relevant assignments on MyMathLab and at least attempted some problems. The assignment does not have to be completed before coming to class.

You are responsible for contacting your professor if you know in advance that you will miss class for any reason. Please note that unless your absence is due to a South Plains College-sponsored function or activity, due dates for assignments will only be moved at the discretion of your professor. No assignments are accepted after their due date, and multiple attempts are not given, except in the case of homework as detailed below.

Homework: We will be using MyMathLab for homework assignments. It is highly recommended that you spend some time doing homework as often as possible (I personally recommend a minimum of 5 days per week.) All homework assignments will have embedded lecture videos produced by Pearson that follow the text. Due dates for homework are shown on Blackboard. Homework may be worked on after the due date for a 50% of the credit.

Quizzes: Quizzes will be given at least weekly, except on weeks with exams. Quizzes are weighted the same as homework assignments for the purposes of your overall grade. Quizzes may not be retaken, rescheduled, or made up.

Exams: There will be three midterm exams given during this course. During exams cell phones, smart-watches, laptops, and other such objects should be turned *off* and put away. There is no tolerance for violations. Exams may not be retaken, rescheduled, or made up.

Final Exam: The final exam is comprehensive, and a required part of the course. Failure to attend/attempt the final exam results in an automatic F. Find your final exam time based on your section below:

007	Monday, December 8, 8 am
011	Tuesday, December 9, 10:15 am

Week	Lesson/Topic
Week 1 8/25-8/28	Lesson 1: Intro to Functions Lesson 2: Domain and Range, Algebra of Functions
Week 2 9/1-9/4	9/1 - <i>Labor Day</i> Lesson 3: Radical Functions and Equations
Week 3 9/8-9/11	Lesson 4: Increasing, Decreasing, and Piecewise Functions Lesson 5: Symmetry and Transformations of Functions
Week 4 9/15-9/18	Exam 1 (Lessons 1 through 5) Lesson 6: Quadratic Functions
Week 5 9/22-9/25	Lesson 7: Polynomial Functions Lesson 8: Polynomial Division and the Remainder and Factor Theorems
Week 6 9/29-10/2	Lesson 9: Zeros of Polynomial Functions
Week 7 10/6-10/9	Lesson 10 Rational Equations Lesson 11: Rational Functions
Week 8 10/13-10/16	Lesson 12: Polynomial and Rational Inequalities
Week 9 1/20-10/23	Exam 2 (Lessons 6 through 12) Lesson 13: Function Compositions and Inverses
Week 10 10/27-10/30	Lesson 14: Exponential and Logarithmic Functions
Week 11 11/3-11/6	Lesson 15: Properties of Logarithms
Week 12 11/10-11/13	Lesson 16: Solving Exponential and Logarithmic Equations Lesson 17: Exponential Growth and Decay
Week 13 11/17-11/20	Exam 3 (Lessons 12 through 16) Lesson 18: Systems of Linear Equations
Week 14 11/24-11/27	Lesson 19: Systems of Linear Equations using Matrices 11/26 - 11/28: <i>Thanksgiving Holiday</i>
Week 15 12/1-12/4	Lesson 20: Determinants and Cramer's Rule
Week 16	Final Exam (section 007) - 12/8 at 8 am Final Exam (section 011) - 12/9 at 10:15 am