



## **MATH 1111 College Algebra**

### **COURSE SYLLABUS**

### **Fall Semester 2017**

#### **COURSE INFORMATION**

Credit Hours/Minutes: 3/2250  
Class Location: Room 323  
Class Meets: M,T,W,R 9:30-10:45  
CRN: 20061

#### **INSTRUCTOR CONTACT INFORMATION**

Instructor Name: Dr. Bee Hart  
Office Location: Room 323  
Office Hours: 3:00-4:30 M,T,W,R  
Email Address: [bhart@southeasterntech.edu](mailto:bhart@southeasterntech.edu)  
Phone: 912.538.3131  
Fax Number: 912.538.3156  
Tutoring Hours: 3:00-4:00 W

#### **REQUIRED TEXT**

Blitzer, Robert R. (2014). College Algebra (6<sup>th</sup> edition). New Jersey: Pearson Education, Inc. This textbook package includes the required MATHXL Access Code, the Student Solutions Manual, the CD Lecture Series, and the Prentice Hall Tutor Center.

#### **REQUIRED SUPPLIES & SOFTWARE**

Supplies: 3-ring binder notebook, computer access, loose-leaf paper, pencils, notebook, highlighter, graphing calculator (TI-83 or 84 preferred), and graph paper. Required Software: Mathxl Access Code. Additional Requirements: Daily, MTWR, access to a reliable internet connection for use with Blackboard, Mathxl, mySTC, and college email.

Note: Although students can use their smart phones and tablets to access their online course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Neither BLACKBOARD nor GVTC provide technical support for issues relating to the use of a smart phone or tablet so students are advised to not rely on these devices to take an online course.

#### **COURSE DESCRIPTION**

This course emphasizes techniques of problem solving using algebraic concepts. Topics include: fundamental concepts of algebra; equations and inequalities; functions and graphs; systems of equations; optional topics including sequences, series, and probability; and analytic geometry.

## **MAJOR COURSE COMPETENCIES**

Topics include: fundamental concepts of algebra; equations and inequalities; functions and graphs; systems of equations; optional topics including sequences, series, and probability; and analytic geometry.

## **PREREQUISITE(S)**

Appropriate Degree Level Math Placement Test Score

## **COURSE OUTLINE**

1. Fundamental Concepts of Algebra.
2. Equations and Inequalities
3. Functions and Graphs
4. Systems of Equations
5. Optional Topics including Sequences, Series, Probability, and Analytical Geometry

## **GENERAL EDUCATION CORE COMPETENCIES**

STC has identified the following general education core competencies that graduates will attain:

6. The ability to utilize standard written English.
7. The ability to solve practical mathematical problems.
8. The ability to read, analyze, and interpret information.

## **STUDENT REQUIREMENTS**

Students are expected to attend all classes and proactively engage themselves in the learning process. Students are expected to seek help and clarification for topics/assignments for which they need additional support and to make gainful contributions during group work. Students are also expected to complete all assignments by the given due date. Students should anticipate spending 1-2 hours each day outside of class working on the course.

## **ATTENDANCE GUIDELINES**

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of F and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or

receives an F in a course.

### **SPECIAL NEEDS**

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas, 912-538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu), to coordinate reasonable accommodations.

### **SPECIFIC ABSENCES**

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

### **PREGNANCY**

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with Helen Thomas, 912-538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu).

### **WITHDRAWAL PROCEDURE**

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

**Remember** - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

### **MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC...)**

A grade of zero will be assigned for any missed assignment regardless of the reason. If the instructor is informed of a scheduled absence ahead of time, an assignment date may be rescheduled at the discretion of the instructor.

### **ACADEMIC DISHONESTY POLICY**

The STC Academic Dishonesty Policy states All forms of academic dishonesty, including but not limited to

cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the STC Catalog and Student Handbook.

## PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

### 1. First Offense

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

### 2. Second Offense

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

### 3. Third Offense

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

## STATEMENT OF NON-DISCRIMINATION

The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

<b>ADA/Section 504 - Equity- Title IX (Students) - OCR Compliance Officer</b>	<b>Title VI - Title IX (Employees) - EEOC Officer</b>
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 108 Phone: 912-538-3126 <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3147 <a href="mailto:bwilcox@southeasterntech.edu">bwilcox@southeasterntech.edu</a>

## GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on STC's website.

## ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [STC website](#).

## TCSG GUARANTEE/WARRANTY STATEMENT

*The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

## GRADING POLICY

Assessment/Assignment	Percentage
Exams	40%
Quiz Average	10%
Homework Average	25%
Final Exam	25%

## GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

## MATH 1111 College Algebra Fall Semester 2017 Lesson Plan

MATH 1111 HOMEWORK GUIDE AND LESSON PLAN – Subject to changes and updates  
College Algebra, 6<sup>th</sup> Edition

You may have textbook homework, or mathxl homework, or a combination of both based on the requirements of your specific instructor. You have a Mathxl Access Code that will be used for such things as homework, quizzes, or tests. Your instructor will give you directions during class or in Blackboard on how to register for Mathxl. If you have an old mathxl access code that is less than a year old, you can just transfer your enrollment from your old course to your new course by logging in and using the new Course ID provided by your instructor.

Textbook homework that may be assigned should be done on loose leaf notebook paper. Show details of the step-by-step work you use to solve each problem in order to receive any credit. Show high-quality work that you can be proud of. Your instructor will let you know when you have textbook homework. *(Sonya Wilson does require textbook homework)*

Use the Mathxl Lecture Videos, Homework Tutorial Buttons, and the Mathxl Study Plan to learn the material.

Watch the CD-Rom Lectures that came with your textbook package. These are great! I expect you to watch these as you study each section. The lectures have a teacher that explains problems from each section!! If your textbook does not include these, there are plenty of other options for tutorials.

Look for your specific book title. This site includes tutorials for every section & chapter in your book.

This website is almost exactly like Mathxl.

Textbook Homework Expectations: Always check answers as you complete each problem when doing textbook homework. Answers are in the back of the book and complete solutions are in the Student Solutions Manual. Do all textbook homework, in detail, on notebook paper. Homework will be graded a few times this semester. Finish each chapter's homework BEFORE the test on each chapter. Make sure you are showing YOUR ORIGINAL and DETAILED WORK on notebook paper for me to grade. See the book examples for examples of how detailed I expect your work to be in order for you to get credit when I grade it. Also, you should write the original problem, and then show the work that proves the final answer. You don't have to write out a word problem though!

HOURS/MINUTES 2250 min = 37.5 hours	CHAPTER/UNIT	OBJECTIVES	ASSIGNMENTS	COMP.
1-5	Chapter P Fundamental Concepts of Algebra	P.1: Algebraic Expressions, Mathematical Models, and Real Numbers P.2: Exponents and Scientific Notation P.3 Radicals and Rational Exponents P.4: Polynomials P.5: Factoring Polynomials P.6: Rational Expressions	Mathxl: Register for Mathxl and complete the Chapter P Assignments found under the Homework and Tests Button.  Textbook Homework: P.1: 17, 19, 23, 25, 31, 33, 35, 37, 53, 57, 61, 63, 71, 93, 95, 97, 103, 107, 117, 119, 125, 129, 131, 133, 135, 137, 153, 154, 155 P.2: 1 – 105 EOO (means to do every other odd 1, 5, 9, etc.), and 123 P.3: 1 – 105 EOO, 119, 120 P.4: 13, 17, 29, 47, 57, 65, 73, 79, 81, 87, 89, 93, 103, 107 P.5: Important Section! 1 – 93 EOO, 115 P.6: 1 – 65 EOO, 81, 85, 87  ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due. Homework Objective Quiz(zes) Competency Test(s)	1,2 *a,b,c
6-8	1 Equations and Inequalities	1.1: Graphs and Graphing Utilities 1.2: Linear Equations and Rational Equations 1.3: Models and Applications	MATHXL: Do the Ch. 1 Mathxl Requirements  Textbook Homework: 1.1: 13 -27 odd, 29-45 odd, 51, 75,77, 79 1.2: 15, 17-77 EOO, 79, 93,	2,3 *a,b,c

		<p>1.4: Complex Numbers (opt)</p> <p>1.5: Quadratic Equations</p> <p>1.6: Other Types of Equations (opt)</p> <p>1.7: Linear Inequalities and Absolute Value Inequalities (opt)</p>	<p>105, 111, 125</p> <p>1.3: Use algebraic equations as shown in the book examples to solve all of these problems: 3, 7, 9, 21, 25, 27, 29, 33, 35 – 45 odd, 49, 55 – 73 odd, 91</p> <p>1.4: 1 – 53 EOO, 55, 58, 65, 66</p> <p>1.5: 3, 9, 11, 19, 23, 35, 47, 55, 61, 67, 69, 71, 75 – 81 odd, 105, 107, 115, 139, 141, 143, 153</p> <p>1.6: 1 – 37 EOO, 61 – 73 EOO, 115, 119, 122, 123</p> <p>1.7: 1 – 57 EOO, 63, 79, 117</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p> <p>Homework</p> <p>Objective Quiz(zes)</p> <p>Competency Test(s)</p>	
9-12	2 Functions and Graphs	<p>2.1: Basics of Functions and their Graphs</p> <p>2.2: More on Functions and their Graphs</p> <p>2.3: Linear Functions and Slope</p> <p>2.4: More on Slope</p> <p>2.5: Transformation of Functions</p> <p>2.6: Combinations of Functions; Composite Functions</p> <p>2.7: Inverse Functions</p> <p>2.8: Distance and Midpoint Formulas; Circles</p>	<p>MATHXL: Do the Ch. 2 Mathxl Requirements</p> <p>Textbook Homework:</p> <p>2.1: 1, 5, 9, 11-25 odd, 29, 33, 35, 39, 43, 45, 47, 49, 51-63 odd, 77-91 odd, 101, 109, 110, 112</p> <p>2.2: 1, 3, 5, 17, 19, 21, 33, 37, 41, do #81 but do not graph it, 95, 100</p> <p>2.3: 1-9 odd, 13, 17, 33, 35, use the correct method for 41 and 43, 49-57 odd, 63, 65, 67, 85, 86, 87</p> <p>2.4: 1, 3, 5, 7, 9, 11, 27, 31, 32</p> <p>2.5: 53-65 odd, 81-89 odd, 129-132 all</p> <p>2.6: 1-11 odd, 17, 19, 31, 53, 61, 69, 73, 97</p> <p>2.7: 3, 5, 15, 17, 29, 31, 33, to do 35 and 37 you switch (x,y) to (y,x) and graph this as the inverse, 73</p> <p>2.8: 7, 15, 19, 21, 29, 31, 35, 37, 41, 45, 65, 81, 81</p>	1, 3 *a,b,c

			<p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p> <p>Homework Work Ethics Math Discussion Board Objective Quiz(zes) Competency Test(s)</p>	
13-16	3 Polynomial and Rational Functions	<p>3.1 Quadratic Functions</p> <p>3.2: Polynomial Functions and Their Graphs</p> <p>3.3: Dividing Polynomials: Remainder and Factor Theorems</p> <p>3.6: Polynomial and Rational Inequalities</p> <p>3.7: Modeling Using Variation</p>	<p>MATHXL: Do the Ch. 3 Mathxl Requirements</p> <p>Textbook Homework:</p> <p>3.1: Explain how you know the answers for numbers 1-8 all by studying page 313, 19-21 odd, 27, 41, 45, 57, 65, 74, 75</p> <p>3.2: For numbers 25-31 odd, just find the zeros of each one and explain what a <b>zero of a function</b> really represents (note you may have to factor some of these to find the zeros), and do 82.</p> <p>3.3: 1, 11, 17, 25, 29, 35, 37, 43, 52</p> <p>3.6: 1, 3, 5, 43, 45, 55</p> <p>3.7: 1, 3, 21</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p> <p>Homework Objective Quiz(zes) Competency Test(s)</p>	3 *a,b,c
17-22	4 Exponential and Logarithmic Functions	<p>4.1: Exponential Functions</p> <p>4.2: Logarithmic Functions</p> <p>4.3: Properties of Logarithms</p> <p>4.4: Exponential and Logarithmic Equations</p> <p>4.5: Exponential Growth and Decay: Modeling Data</p>	<p>MATHXL: Do the Ch. 4 Mathxl Requirements</p> <p>Textbook Homework:</p> <p>4.1: 1 – 13 odd, 19-24 all and explain why you made each choice, then on 25 – 31 odd you need to sketch a basically accurate graph and explain the transformations you had to use and you don't have to</p>	1,3,5 *a,b,c



			<p>do the asymptotes, do the same for 35, 37, and 41, and also do 67</p> <p>4.2: 1 – 41 odd and show proof for each one or write the definition or property that explains your answer, do 81 – 99 odd and show proof, and do 121 and 122</p> <p>4.3: 1 – 13 odd, 41 – 57 odd</p> <p>4.4: 1 – 13 odd, 23 – 35 odd, 49 – 63 odd, 117</p> <p>4.5: 1, 5, and 9</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p> <p>Homework Objective Quiz(zes) Competency Test(s)</p>	
23-27	5 Systems of Equations and Inequalities	<p>5.1: Systems of Linear Equations in Two Variables</p> <p>5.2: Systems of Linear Equations in Three Variables</p> <p>5.4: Systems of Nonlinear Equations in Two Variables</p> <p>5.5: Systems of Inequalities</p>	<p>MATHXL: Do the Ch. 5 Mathxl Requirements</p> <p>Textbook Homework: 5.1: 1 – 41 EOO, 43, 45, 57, 61, 63, 83, 85, 86 5.2: 1, 5, 9, 13, 23, 39 5.4: 1, 5, 7, 9, 19, 21, 43, 45, 59 5.5: 1, 5, 9, 13, 19, 29, 35, 47, 90, 91, 96</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p> <p>Homework Objective Quiz(zes) Competency Test(s)</p>	2,4 *a,b,c
28-32	6 Matrices and Determinants	<p>6.3: Matrix Operations and Their Applications</p> <p>6.5: Determinants and Cramer’s Rule</p>	<p>MATHXL: Do the Ch. 6 Mathxl Requirements</p> <p>Textbook Homework: 6.3: Do 1-15 odd, 27-35 odd 6.5: Do 1-25 odd</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will</p>	4,5 *b,c

			<p>detail how and when the following items are due.</p> <p>Homework Work Ethics Math Discussion Board Objective Quiz(zes) Competency Test(s)</p>	
33-34	7 Conic Sections	<p>7.1: The Ellipse 7.2: The Hyperbola 7.3: The Parabola</p>	<p>MATHXL: Do the Ch. 7 Mathxl Requirements</p> <p>Textbook Homework: 7.1: 1 &amp; 5 (Graph the ellipse, but don't find the foci), 19 – 23 ODD (Find the equation, but not the foci), 69, 70 7.2: 1 and 3 (Find the vertices, but not the foci), 70 7.3: 1 – 4 all (Just match each equation with its graph, and explain your choice. Do not find the focus and directrix.), 5 – 15 odd (Just Graph. Do not find the focus or directrix. Clearly mark and label the vertex, the x-intercept(s), and/or the y-intercept(s) in order to prove you have drawn the correct graph. Show the work that proves your graph.), 69, 71, 73 ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p> <p>Homework Objective Quiz(zes) Competency Test(s)</p>	5 *b,c
35	8 Sequences, Induction, and Probability	8.1: Sequences and Summation Notation	<p>MATHXL: Do the Ch. 8 Mathxl Requirements</p> <p>Textbook Homework: <b>8.1:</b> 23, 25, 29 (Show work similar to the book examples.), and do 77.</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are due.</p>	5 *b,c

			Homework Objective Quiz(zes) Competency Test(s)	
36-37.5	Final Exam		Final Exam	
Students who have passed the course with an A, B, or C should contact their advisor regarding the WorkKeys Applied Mathematics Exam. Passing this exam is a requirement for graduation.				

**COURSE OUTLINE:**

Fundamental Concepts of Algebra

Equations and Inequalities

Functions and Graphs

Systems of Equations

Optional Topics including Sequences, Series, Probability, and Analytical

Geometry

**\*\*General Core Educational Competencies**

The ability to utilize standard written English. (i.e. Explanations of answers, Writing Problems)

The ability to solve practical mathematical problems. (i.e. Entire Course)

The ability to read, analyze, and interpret information. (i.e. Entire Course, Applications)

**\*\*\*\*Instructor reserves the right to change the syllabus and/or lesson plan as necessary.\*\*\*\***