MATH 1113 Precalculus Web-enhanced with MathXL
COURSE SYLLABUS
Spring Semester 2018 - 201814

COURSE INFORMATION
Credit Hours/Minutes: 3/2250
Class Location: Treutlen County High School
Class Meets: 8:00 – 9:42 a.m., Monday and Wednesday
Course Reference Number (CRN): 40272
Preferred Method of Contact: College Email

INSTRUCTOR CONTACT INFORMATION
Instructor Name: Sonya F. Wilson
Office Location: Swainsboro Campus, Building 6, Room 6218
Office Hours: MW 1:00-5:00, TR 2:30-4:30
Email Address: [Sonya Wilson](mailto:swilson@southeasterntech.edu) (swilson@southeasterntech.edu)
Phone: 478.289.2298
Fax Number: 478.289.2276
Tutoring Hours: 2:30-3:30 T, or by Appointment

SOUTHEASTERN TECHNICAL COLLEGE (STC) CATALOG AND STUDENT HANDBOOK
Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's [Catalog and Student Handbook](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (http://www.southeasterntech.edu/student-affairs/catalog-handbook.php).

TEXT (PROVIDED BY DUAL ENROLLMENT)
Blitzer, Robert R. (2010). Precalculus (fourth edition). New Jersey: Pearson Education, Inc.

REQUIRED SUPPLIES & SOFTWARE
Software: MathXL is the software required for the course. The MathXL Access Code may be purchased from the bookstore or from the [MathXL Website](http://www.mathxl.com) (www.mathxl.com) after the course has started and you have the MathXL Course ID needed to register.   The student will be given instructions to register for MathXL during class. The student will need to register for MathXL by obtaining the MathXL Course ID from the menu in their online course.

Supplies: Three ring binder notebook, computer access, loose-leaf paper, pencils (all math problem work must be done in pencil), highlighter, graphing calculator (TI-83 or TI-84), and graph paper.). Cellphones or other electronic devices cannot used be in the course. 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 Georgia Virtual Technical Connection (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.

CALCULATOR USAGE

The use of cell phones or other internet capable devices are not allowed for calculator usage. Students are expected to bring a calculator appropriate for the course content each day of class and for use in the online course. If calculator usage is not allowed for some topics, students are required to adhere to those expectations.

COURSE DESCRIPTION:

MATH 1113 – Pre-Calculus (3 credit hours, 2250 minutes)
Prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include maximum and minimum problems, exponential growth and decay.

MAJOR COURSE COMPETENCIES/OUTLINE:

1. Define a logarithm and use logarithmic properties
2. Define and graph a logarithmic function; find domain and range; and solve applications
3. Define, determine domain and range, and graph the six circular functions
4. Define the six trigonometric functions; use to solve right/oblique triangles and solve applications
5. Use trigonometric identities to prove other identities and work with the inverse trig. Functions
6. Define and work with vectors
7. Define and work with complex numbers
8. Define basic concepts related to functions and their graphs
9. Graph a function using a graphing calculator
10. Define and graph linear functions and solve applications involving them
11. Define and graph quadratic functions and solve applications involving them
12. Perform operations involving functions including finding the inverse of a functions
13. Define and graph polynomial functions including end behavior and zeros (real and imaginary)
14. Define and graph rational functions including basic characteristics and transformations
15. Define, evaluate, and graph exponential functions and use them to model phenomena

PRE-REQUISITE:

Regular Admission and MATH 1111 with C or better

GENERAL EDUCATION CORE COMPETENCIES

STC has identified the following general education core competencies that graduates will attain:
1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

Students are expected to keep assigned work in a notebook and pass competency tests at scheduled times.

Students are also expected to do all homework and assignments as scheduled and are expected to have all supplies and access to software required by the course syllabus. Some courses may be web-enhanced and require the use of Blackboard, textbook websites, or textbook software. Quizzes and homework grades may be given at any time without prior notice, and makeups or late work on these assessments may or may not be accepted upon the discretion of the instructor. Students are expected to show high-quality, detailed work when completing all assignments.

A software program called MathXL is required. Students meet these requirements by completing Mathxl homework, quizzes, and by using Mathxl homework tutorial features such as the videos, Study Plan, View an Example button, etc. Most MathXL work is to be completed out of class time. Campus computers are available for use for students who do not have proper access at home. Students are expected to use home computers, the Math Classroom or other labs on campus to complete MathXL assignments.

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 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" (Failing 0-59) 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.

ATTENDANCE GUIDELINES ADDENDUM

Students who are absent, for any reason, are responsible for contacting other classmates to determine what was missed and what is due. Due dates that occur during a scheduled school event should be planned for and completed early.

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 (hthomas@southeasterntech.edu), 912-538-3126, 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 (hthomas@southeasterntech.edu), 912-538-3126, to coordinate reasonable Accommodations.

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" (Withdrawn) 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 percent 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" (Failing 0-59) being assigned.

After the 65 percent 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 speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed 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.

ACADEMIC ENGAGEMENT REWARD (WEB-ENHANCED MATH – SONYA WILSON)

Students who are academically engaged **each week** will receive a reward to replace a low test grade in the 50% category of the grading policy. To achieve this reward for Sonya Wilson's Web-Enhanced Math Class:

- Students must attend 90% of the scheduled class meetings. 3 tardies = an absence. 3 early departures = an absence. Tardiness/departures over 10 minutes will be counted by minutes towards an absence, **and;**
- Students must spend a total of 20 or more hours on the required/assigned Mathxl homework, Mathxl quizzes, and Mathxl tests this semester. Mathxl totals these hours for the instructor. This will not include the extra time students may have to spend watching videos, using tutorials, working in the study plan, working on Discussion Boards, etc.

Students who meet the academic engagement expectation will be allowed to replace their lowest, 50% category, competency test grade with their final exam grade. The replaced grade will be a competency exam (chapter test grade) and will not include such items as a mid-semester exam, final exam, or a proctored online exam. If the final exam grade is lower than the lowest competency test grade, then the final exam will not be used as a replacement grade and the lowest competency test grade will be left in place. Students who receive their lowest test score due to cheating are not eligible for the attendance reward. **This is a great reward to work for! It can have a very positive effect on most averages. All it takes is a steady weekly commitment to do all assignments.**

MAKEUP GUIDELINES

15% Homework: MathXL: No makeups are allowed on Mathxl homework assignments. Each Mathxl homework problem offers infinitely many chances to redo it using the tutorials offered with each problem. A grade of 100 is possible on each homework problem if the resources are used. Please note that the average you make on homework by the end of the semester will also count as a test grade in the Test Category. (For example, a 100 HW average = an individual test category test grade recorded in the BB gradebook. It is worth noting that a low homework average will result in a low test grade being recorded in BB.) **Makeup on Textbook or In-Class Homework:** A one class-day late policy may be allowed when text or class homework is given. The instructor may allow the student to turn it in on the next schedule class day, but the highest grade allowed will be an 80.

10% Quizzes: No makeups are allowed on Mathxl quizzes because you are already allowed 3 chances on each quiz. The best of 3 chances is the one that counts. Please note that you can earn two additional quiz 100's by completing work in the Study Plan in Mathxl and/or the Lecture Videos located above each chapter of homework with (Rewarded) in the title. The Study Plan is an online tutorial that you can do as needed, but it is not required. You will earn a 100 when you complete 5 hours in the Study Plan or Lecture Videos. You will earn another 100 if you complete an additional 5 hours in the Study Plan or Lecture Videos. (Some students accidentally leave the videos on and acquire an unreasonable number. Those times will not be used. For example, 50 hours for one group of videos is unreasonable when most videos are 10 minutes or less. A max of 2 hours will be will be allowed in those cases.) Some in-class quizzes may be given. The highest allowed will be an 80 if a makeup is granted.

50% Chapter Tests: No makeup tests are allowed, but an Academic Engagement Reward can be earned to be granted, the highest allowed will be an 80 due to the extended time the student had to study.

25% Final Exam: No makeup is allowed unless a valid documented excuse has been provided.

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" (Withdrawn Failing) 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:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1st Street, Vidalia Office 108 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1st Street, Vidalia Office 138B Phone: 912-538-3147 Email: Blythe Wilcox bwilcox@southeasterntech.edu

ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

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 Southeastern Technical College Website (www.southeasterntech.edu).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (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
Homework	15%
Quizzes	10%
Tests	50%
Final Exam	25%

GRADING SCALE

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

ADDITIONAL GRADING INFORMATION:

Your official average for the course is located in Blackboard (BB) using the weights described in the Grading Policy section of the syllabus. The average you will see in the Mathxl program just gives you an idea of how you are doing on homework, quizzes, and tests. Mathxl also shows you the correct individual grade on each item you complete. The Blackboard gradebook is manually updated by the instructor after major due dates.

15% Homework Category (DUAL): The homework for this course is located in Mathxl and the textbook. The average for homework will be transferred from Mathxl to the online BB grade book after major due dates. The instructor manually enters these grades and must be given time to do so. Mathxl homework grades are always available to you immediately after you finish each homework problem in Mathxl. Textbook Homework or In-Class Homework may be given. The grade achieved will also be recorded in MathXL to average with the other homework grades.

10% Quizzes Category: Your quiz average will be updated and displayed in Blackboard after major due dates. Individual quiz grades will be recorded in Mathxl. The individual quiz grades will consist of quizzes given in the Mathxl program as well as several off-line quizzes that may be required by your instructor. An off-line quiz is a traditional handwritten quiz or a quiz that is done outside of Mathxl, but the grade will be recorded in Mathxl.

Note about Mathxl: Mathxl is a valuable tool that can greatly enhance your learning of the material. In addition, Mathxl will increase your ability to work in the online environment which is in high demand in today's workforce. Please take full advantage of the tutorial buttons associated with each homework problem. In addition, make use of the Study Plan Tool in Mathxl if extra help is needed on any of the concepts.

Note about not giving up: A few bad grades are never a good reason to give-up. Giving up results in an F whereas trying usually results in an A, B, C, or D --- all of which are better than an F. Most students are able to turn things around after a few bad grades if they just try. Always take time to discuss things with your instructor. We have to learn to overcome bad circumstances and not run away from them. It is usually easier to turn things around than you think.

How many hours per week should I expect this course to take me? Class Time/Contact Hours for this course are 2250 minutes or 37.5 hours for an entire semester. In a lecture class, this would be considered seat time. This is equivalent to 2.5 hours per week during a 15 week semester, 3.75 hours per week during a 10 week semester, and 4.167 hours per week during a 9 week semester. In addition to class time, students can expect to spend 2 to 3 times the contact hours to doing additional tasks such as homework, tutorials, reading, and studying. Therefore, the course will take more than 37.5 hours.

- 15 Week Semester: 2.5 contact hours per week X 2 = a minimum of 5 hours per week.
- 10 Week Semester: 3.75 contact hours per week X 2 = a minimum of 7.5 hours per week.
- 9 Week Semester: 4.167 contact hours per week X 2 = a minimum of 8.334 hours per week.

Are you feeling overwhelmed as you read all your course expectations for each class? That is a natural reaction at the beginning of the semester. Just listen to and communicate with your instructors and classmates. Take time to become organized in each class, and it will all come together soon. Your instructors want you to be successful.

MATH 1113 PRECALCULUS

Spring 201814 Lesson Plan – TCHS

HOURS/MINUTES 2250 minutes = 37.5 hours	CHAPTER/UNIT	OBJECTIVES	ASSIGNMENTS (Specific Due Dates will be tentative due to unexpected daily events.)	COMPENTENCY AREA
~1-2	Chapter P Prerequisites: Fundamental Concepts of Algebra 1	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 P.7: Equations P.8: Modeling with Equations P.9: Linear Inequalities and Absolute Value Inequalities	**Mathxl:** Register for Mathxl and complete the Chapter P Assignments found under the Homework and Tests Button. **TEXTBOOK HOMEWORK: P.1-P.9:** Assigned By Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class Objective Quiz(zes) in MathXL and/or class Competency Test (s) in MathXL and/or class**	8,9,10 *a,b,c,
~3-6	1 Functions and	1.1: Graphs and Graphing Utilities	**MATHXL Homework:** Do your chapter 1 mathxl	8, 9, 10, 12 *a,b,c

HOURS/MINUTES 2250 minutes = 37.5 hours	CHAPTER/UNIT	OBJECTIVES	ASSIGNMENTS (Specific Due Dates will be tentative due to unexpected daily events.)	COMPENTENCY AREA
	Graphs	1.2: Basics of Functions and Their Graphs 1.3: More on Functions and Their Graphs 1.4: Linear Functions and Slope 1.5: More on Slope 1.6: Transformations of Functions 1.7: Combinations of Functions; Composite Functions 1.8: Inverse Functions 1.9: Distance and Midpoint Formulas; Circles 1.10: Modeling with Functions	homework. **TEXTBOOK HOMEWORK: 1.1-1.10:** Assigned By Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class** **Objective Quiz(zes) in MathXL and/or class** **Competency Test (s) in MathXL and/or class**	
~7-11	2 Polynomials and Rational Functions	2.1: Complex Numbers 2.2: Quadratic Functions 2.3: Polynomial Functions and Their Graphs 2.4: Dividing Polynomials; Remainder and Factor Theorems 2.5: Zeros and Polynomial Functions 2.6: Rational Functions and Their Graphs 2.7: Polynomial and Rational Inequalities 2.8: Modeling Using Variation	**MATHXL Homework:** Do your mathxl homework. **TEXTBOOK HOMEWORK: 2.1 – 2.8:** Assigned By Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class** **Objective Quiz(zes) in MathXL and/or class** **Competency Test (s) in MathXL and/or class**	7, 8,9,10,11,12,13,14 *a,b,c
~12-17	3 Exponential	3.1 Exponential Functions	**MATHXL Homework:** Do your mathxl homework.	1,2,8,9,12,15 *a,b,c

HOURS/MINUTES 2250 minutes = 37.5 hours	CHAPTER/UNIT	OBJECTIVES	ASSIGNMENTS (Specific Due Dates will be tentative due to unexpected daily events.)	COMPENTENCY AREA
	and Logarithmic Functions	3.2: Logarithmic Functions 3.3: Properties of Logarithms 3.4: Exponential and Logarithmic Equations 3.5: Exponential Growth and Decay; Modeling Data	**TEXTBOOK HOMEWORK:** **3.1-3.5:** Assigned By Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class** **Objective Quiz(zes) in MathXL and/or class** **Competency Test (s) in MathXL and/or class**	
~18-24	4 Trigonometric Functions	4.1: Angles and Radian Measures 4.2: Trigonometric Functions: The Unit Circle 4.3: Right Triangle Trigonometry 4.4: Trigonometric Functions of Any Angle 4.5: Graphs of Sine and Cosine Functions 4.6: Graphs of Other Trigonometric Functions 4.7: Inverse Trigonometric Functions 4.8: Applications of Trigonometric Functions	**MATHXL Homework:** Do your mathxl homework. **TEXTBOOK HOMEWORK:** **4.1-4.8:** Assigned By Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class** **Objective Quiz(zes) in MathXL and/or class** **Competency Test (s) in MathXL and/or class**	3,4,8,9,12 *a,b,c
~25-30	5 Analytic Trigonometry	5.1: Verifying Trigonometric Identities 5.2: Sum and Difference Formulas	**MATHXL Homework:** Do your mathxl homework. **TEXTBOOK HOMEWORK:** **5.1-5.5:** Assigned By	3,4,5 *a,b,c

HOURS/MINUTES 2250 minutes = 37.5 hours	CHAPTER/UNIT	OBJECTIVES	ASSIGNMENTS (Specific Due Dates will be tentative due to unexpected daily events.)	COMPENTENCY AREA
		5.3: Double-Angle, Power-Reducing, and Half-Angle Formulas 5.4: Product-to-Sum and Sum-to-Product Formulas 5.5: Trigonometric Equations	Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class Objective Quiz(zes) in MathXL and/or class Competency Test (s) in MathXL and/or class**	
~31-35	6 Additional Topics in Trigonometry	6.1: The Law of Sines 6.2: The Law of Cosines 6.3: Polar Coordinates 6.4: Graphs of Polar Coordinates 6.5: Complex Numbers in Polar Form; DeMoivre's Theorem 6.6: Vectors 6.7: The Dot Product	**MATHXL Homework:** Do your mathxl homework. **TEXTBOOK HOMEWORK: 6.1-6.7:** Assigned By Instructor **ADDITIONAL:** Your instructor will detail how and when the following items are due or scheduled. **Homework in MathXL and/or class Objective Quiz(zes) in MathXL and/or class Competency Test (s) in MathXL and/or class**	5,6 *b,c
~36-37.5	**Final Exam**		**Final Exam**	

MAJOR COURSE COMPETENCIES/OUTLINE:

1. Define a logarithm and use logarithmic properties
2. Define and graph a logarithmic function; find domain and range; and solve applications
3. Define, determine domain and range, and graph the six circular functions
4. Define the six trigonometric functions; use to solve right/oblique triangles and solve applications
5. Use trigonometric identities to prove other identities and work with the inverse trig. Functions
6. Define and work with vectors
7. Define and work with complex numbers
8. Define basic concepts related to functions and their graphs

9. Graph a function using a graphing calculator
10. Define and graph linear functions and solve applications involving them
11. Define and graph quadratic functions and solve applications involving them
12. Perform operations involving functions including finding the inverse of a functions
13. Define and graph polynomial functions including end behavior and zeros (real and imaginary)
14. Define and graph rational functions including basic characteristics and transformations
15. Define, evaluate, and graph exponential functions and use them to model phenomena

GENERAL CORE EDUCATIONAL COMPETENCIES

a) The ability to utilize standard written English.
b) The ability to solve practical mathematical problems.
c) The ability to read, analyze, and interpret information.

DISCLAIMER STATEMENTS

- The instructor reserves the right to change the syllabus and/or lesson plan as necessary.
- The official copy of the syllabus is located inside the online Blackboard course shell or will be given to the student during face to face class time the first day of the semester. The syllabus displayed in advance of the semester, in a location other than the course a student is enrolled in, is for planning purposes only.

MATH TUTORING

Please see your instructor to arrange tutoring times or to gain information about other instructors who provide tutoring. In addition, MathXL is a rich tutorial system which includes a Study Plan, videos, and links to resources such as View an Example and Help me Solve This. Keep a well-organized notebook when doing online work in MathXL so you can reference the material later when you need tutoring.