**Pierce County High School**

**Coastal Pines Technical College**

**12th Grade--MATH 1113--PreCalculus**

**Course Syllabus – Fall 2017**

**Instructor:**  Becky King Email: rebeccaking@pierce.k12.ga.us

 Phone: (912) 449-2055

**Hours on Campus**: 7:50AM-3:50PM MTWRF

 Planning Period: None

I will be available for students to receive extra help 7:30-8:05AM and 3:30-3:50PM daily. Let me know ahead of time, if possible.

**Course Description:** Prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay.

**Pre-requisites:**  MATH 1111 with C or better.

**Course Credit:** 3 Semester Credit Hours

**Contact Hours:** 3 hours lecture = 3 Total Contact Hours

**Class Schedule: MTWR Block 1**

 **MTWR Block 4**

 **Materials:** Notebook, pencils, and an eraser. A MyMathLab access code is required. Coastal Pines will provide each student with a code. You will need a TI-84 graphing calculator for this course (can be checked out from PCHS). You **may not** use your cell phone as a calculator.

**Required Textbook:** *Algebra and Trigonometry, 5th ed.,* Bittinger,,Beecher, Penna. ISBN: 9780321772213 (a la carte with MyMathLab access code)

**Competencies:**

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

**Learning Outcomes:**

* A student exiting MATH 1113 will be able to solve a right triangle for missing sides and angles and apply this knowledge to solving an application problem.

**Course Outline:**

 Chapter R (Math 1111) Basic Concepts of Algebra

 Chapter 1 (Math 1111) Graphs, Functions, and Models

 Chapter 2 (Math 1111) More on Functions

 Chapter 3 (Math 1111) Quadratic Functions and Equations; Inequalities

 Chapter 4 (Math 1111) Polynomial Functions and Rational Functions

 Chapter 5 Exponential Functions and Logarithmic Functions

 Chapter 6 The Trigonometric Functions

 Chapter 7 Trigonometric Identities, Invers Functions, and Equations

 Chapter 8 Applications of Trigonometry

 Chapter 9 Systems of Equations and Matrices

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**Classroom procedures:**

1. Cell phones: See policy in student handbook, page 48.
2. Respect the rights of others to be in class and learn. In particular, conversations during the instructor’s lectures are distracting and hinder learning. You will be warned only once, and if it occurs again, your parent(s) will be contacted.
3. The instructor will take daily attendance for the class.
4. **IT IS THE STUDENT’S RESPONSIBILITY TO KEEP UP WITH THE WEEKLY CLASS SCHEDULE.** If a student misses a class, it is his/her responsibility to find out what was covered and what assignments may be due for the time missed. Students are responsible for what is said in class or listed on the syllabus, regardless of presence or absence. It is each student’s responsibility to complete class assignments and prepare for tests in a timely fashion so that he/she can meet stated deadlines and due dates.
5. Students are expected to keep a notebook in which they maintain handouts and other materials pertinent to class. Once a handout or other resource has been provided to a student, he/she is expected to be able to retrieve that information upon request.
6. Successful completion of this course is based upon demonstration of mastery of the major competencies outlined for the class. Each class will involve sessions of lecture and opportunities to practice the content covered in each class.
7. You must have a signed hall pass to leave class for any reason. You will be allowed to use a hall pass to leave this class a **maximum of three times** during this semester. You will not be allowed to leave class when the 1st/2nd or 7th /8th period bell rings mid-class.

**Student Attendance Requirements:** You may not miss more than **10%** of class meetings to meet the attendance requirements of Coastal Pines Technical College. You must also meet the attendance requirements of Pierce County High School. See Pierce County High Student Handbook.

A student who is tardy more than fifteen minutes (15 minutes) will be considered absent for that class period. Students who leave the classroom or lab fifteen minutes (15 minutes) prior to the scheduled end of class or lab will be considered absent for that class or lab period.

**Student Evaluation and Academic Grading:**

**Course Grading Grading Scale**

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| --- | --- |
| 90 – 100% | A |
| 80 – 89% | B |
| 70 – 79% | C |
| 60 – 69% | D |
| 0 – 59% | F |

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| --- | --- |
| Categories | Weights |
| Unit tests | 50% |
| Daily Grades Midterm | 20%10% |
| Final Exam | 20% |

**Daily Grades**

Daily grades consist of homework or assignments done in class, MyMathLab assignments, and quizzes. Most homework is graded the class period after it is assigned. Daily grades will count 20% of your grade.

**Homework/MyMathLab**

All MyMathLab homework is online. You will find the homework under the “Homework” tab of MyMathLab. Each homework problem has unlimited attempts for each problem. Aim to make 100% on all assignments. Remember, practice makes perfect. Due dates are listed beside the assignments in MyMathLab. **Time extensions will be granted but a penalty of 10% per day will be deducted from the grade for each late assignment.**

**Extra Credit:** Extra credit is not given in this class.

Pierce County High School policy allows for up to 5 points to be added to your average for MOWR courses.

**Unit Tests**

Each unit test is a proctored, in-class test. You are expected to show your work and write all necessary steps in the completion of the problems**.** Remember **NO WORK=NO CREDIT**!!! Tests count 50% of your grade. If you miss a test, please let your instructor know immediately. You will be allowed to make up a tests if you were on a school related trip or if you have a doctor’s excuse. You will need to make arrangements outside of class time to take that test within three days of the absence.

**Midterm Exam**

The final exam will be a paper and pencil test. The midterm will be a comprehensive exam with 20-25 questions. You may use a calculator for this exam. The exam will count 10% of your grade. Ten points will be deducted per day if you miss the midterm and need to make-up the exam.

**Final Exam**

The final exam will be a paper and pencil test. The final exam will be comprehensive exam with 25- 50 questions. You may use a calculator for this exam. The exam will count 20% of your grade. No make-up exams will be allowed for the final exam.

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***This syllabus is subject to change. Any changes will be announced in the classroom. Changes will supersede this syllabus.***

**Important Dates:**

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| **Date** | **Event** |
| **Fall Term Begins** | **August 7, 2017** |
| **Labor Day Holidays** | **September 4, 2017** |
| **Progress Reports** | **September 8, 2017** |
| **Midterm** | **October 11, 2017** |
| **End of 1st nine weeks** | **October 12, 2017** |
| **Fall Holidays** | **October 6,9-10, 2017** |
| **Report Cards** | **October 19, 2017** |
| **Progress Reports** | **November 15, 2017** |
| **Thanksgiving Holidays** | **November 20-24, 2017** |
| **Final Exams**  | **December 11-12, 2017** |
| **Christmas Holidays** | **December 20, 2017-January 9, 2018** |
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**I have read and understand the course requirements, grading procedures, and rules for this course as outlined in this syllabus.**

**NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**CLASS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_Block\_\_\_\_\_**

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Parent/Guardian Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**