**Algebra Syllabus
Fall 2015**

**Course Overview**

Topics for Algebra will include:

* Number classifications
* Solving equations
* Solving inequalities
* Graphing lines and other polynomials
* Solving systems of equations
* Factoring quadratics
* Understanding radical equations and functions

The material will follow up and expand upon knowledge from prealgebra and prior classes. It is expected that students have proficiently passed these classes.

The book for Algebra I is Algebra I by Bellman, Bragg, Charles, et al. produced by Prentice Hall. This book will rarely be required in class (you will be informed if you will need it in advance), but is necessary for homework and other practice. The supplemental reading is Number Devil by Hans Magnus Enzensberger which will be used throughout the course.

Students are *required* to bring a graphing calculator to class daily. Recommended calculators include the TI-83, TI-84 (any edition), or the TI-nSpire (with an 84 keypad). Although we will learn most formulas to compute information by hand, the calculations for this class can be time consuming and a calculator will allow us to get a better understanding of the topics without getting stuck on the more trivial arithmetic. Calculator sharing will not be allowed and the use of one is necessary on assessments for some topics.

**Teaching Methods**

Students will often be asked to explain their reasoning in solving problems. This could be verbally or written in sentence form. Proper vocabulary and understanding of concepts are stressed in these explanations.

Lecture notes will drive much of the course. There will also be some inquiry learning where curious students will be asked to discover some new paths for solutions.

**Student Evaluation**

A student’s grade will be determined by total points. All of the grade will come from quizzes and tests. Although homework is not graded, it is *essential* for understanding and success in the course.

Typically, each question on a quiz or test will be graded on a scale of 1 to 5. A majority of credit will be given to understanding the concept, but a score of 5 will require the student to make no mistakes.

Calculators will often be required on quizzes and tests, so every effort should be made to bring one on these days.

Please see the Retake Policy sheet for more information.

**Materials Needed**

Students will need:

* Large notebook for writing information
* Writing utensils
* Graphing calculator