Xilin Northwest Chinese School

Math\_008\_B\_Algebra 1 Level 2 Syllabus

Meet Time: 3:00-4:50 pm, Sunday, Fall 2017

Location: Room 202

Instructor/Contact: Qian He qhe0420@gmail.com 419-202-4528(Cell)

Textbook:

Title: ALGEBRA 1,

Publisher: Holt, Rinehart and Winston, Inc., 1992

Authors: Eugene D. Nichols, Mervine L. Edwards, etc.

ISBN# :0030054192

Course Content: Chapter 8 to Chapter 11

* Simplifying Rational Expressions;
* Multiplying and Dividing Rational Expressions
* Adding and Subtracting Rational Expressions
* Dividing Polynomials
* Complex Rational Expressions
* Solving Rational Equations;
* Ratios and Proportions;
* Literal Equations;
* Problem Solving: Motion Problems, Work Problems, and Dimensional Analysis;
* Relations, Functions, and Variations;
* Coordinates of Points in a Plane;
* Values of a Function;
* Equations with Two Variables;
* Graphing Linear Equations;
* Direct Variation;
* Inverse Variation;
* Slope of a Line;
* Equation of a Line: Point-Slope Form, Slope-Intercept Form;
* Line Relationships;
* Graphing Linear Inequalities.

**Course Outcomes/Objectives:**

Upon satisfactory completion of the course, students will be able to:

* Understand and make connections between real numbers properties and algebraic expressions.
* Develop the algebraic skills necessary for problem solving.
* Develop the ability to model linear relations, including the use of graphing techniques as tools, for the purpose of solving contextual problems.
* Manipulate and apply literal equations for the purposes of solving contextual problems.
* Write and communicate the results of the solution of problems appropriately

**Class Schedule: (Subject to Change)**

This is a week-by-week tentative course schedule with the textbook sections and student learning outcomes expected to be covered each week. Tentative test dates for midterm and final exams are also provided.

|  |  |  |
| --- | --- | --- |
| **Class Date** | **Contents** | **Homework** |
| 1  08/20/17 | Review of Polynomials, Factoring Polynomials.  8.1. Simplifying Rational Expressions.  8.2. Simplifying Rational Expressions: Convenient Form | Page 292, problem 4-40 multiple of 4; page 296, problem 4-32 multiple of 4; |
| 2  08/27/17 | 8.3-8.4. Multiplying and Dividing Rational Expressions. | Page 304, problem 4 - 44 multiple of 4. |
| 3  9/10/17 | 8.5-8.7. Adding and Subtracting Rational Expressions. | Page 319, problem 12 - 40 multiple of 4. |
| 4  9/17/17 | 8.8. Dividing Polynomials  8.9. Complex Rational Expressions | Page 332, problem 1-23 |
| 5  9/24/17 | 9.1. Rational Equations  9.2. Ratios and Proportions | Page 341, problem 4 – 28 multiple of 4  Page 347, problem 4 – 48 multiple of 4; |
| 6  10/01/17 | 9.3. Literal Equations  9.4. Problem Solving: Motion Problems | Page 352, problem 4 – 40 multiple of 4;  Page 357, problem 2-16 even. |
| 7  10/08/17 | 9.5. Problem Solving: Work Problems  9.6. Dimensional Analysis | Page 362, problem 6-20 even. Page 366, problem 10-18 even. |
| 8  10/15/17 | Midterm |  |
| 9  10/22/17 | 10.1. Coordinates of Points in a Plane  10.2. Relations and Functions | Page 380, problem 6-28 even. Page 384, problem 4 – 40 multiple of 4; |
| 10  10/29/17 | 10.3. Values of a Function  10.4. Equations with Two Variables | Page 388, problem 4 – 32 multiple of 4; Page 395, problem 4 – 32 multiple of 4; |
| 11  11/5/17 | 10.5. Graphing Linear Equations  10.6. Direct Variation | Page 399, problem 2-22 even. Page 403, problem 4 – 24 multiple of 4; |
| 12  11/12/17 | 10.7. Inverse Variation  11.1. Slope of a Line | Page 416, problem 4-32 multiple of 4; Page 421, problem 4-32 multiple of 4; |
| 13  11/19/17 | 11.2. Equation of a Line: Point-Slope Form  11.3. Equation of a Line: Slope-Intercept Form | Page 427, problem 4-48 multiple of 4; Page 431, problem 4-28 multiple of 4; |
| 14  12/3/17 | 11.4. Line Relationships  11.5. Graphing Linear Inequalities | Page 437, problem 4-32 multiple of 4; Page 442, 1-21; Page 408 1-22.  Page 370, 1-21. |
| 15  12/10/17 | Final review and Practice |  |
| 16  12/17/17 | Final Exam |  |

**Delivery Method:**

1. In classroom presentation, quizzes, discussion and homework.
2. Each week, homework is assigned and is due the following week.