

POLYNOMIALS and APPLICATIONS

SEMESTER TWO: February – June 2010

MATH 9 CURRICULUM TIMELINE:

UNIT 1– POLYNOMIALS: (6 weeks)

- Introduction to polynomials and their related terms; adding and subtracting
- Polynomials; multiplying and dividing monomials; multiplying and dividing a polynomial by a monomial; multiplying two binomials;
- Factoring binomials, trinomials, and polynomials using the Greatest Common Factor (GCF); factoring trinomials by grouping

UNIT 2 – GRAPHING: (5 weeks)

- Overview of the Cartesian Coordinate System
- Interpret graphs that represent linear, parabolic (quadratic), and exponential relations
- Linear relations (graphing using tables of values, word problems)
- X and y intercepts
- Slope
- Equation of a line
- Scatter Plots
- Equation of line of best fit
- Rearranging equations to find slope and y-intercept
- Review of dependent and independent variables
- Distinguish between continuous and discrete data
- Solve and create problems involving linear equations

UNIT 3 – CONGRUENT AND SIMILAR TRIANGLES: (4 weeks)

- Triangle review (classification based on lengths of sides and angles)
- Unique triangles (SSS, SAS, ASA, AAS);
- Congruent triangles
- Making deductions using congruent triangles (proofs)
- Rates, ratios, and proportions; similar triangles (AAA)
- Using similar triangles to solve word problems

UNIT 4 – MEASUREMENT: (3 weeks)

- Review surface area and volume of prisms and cylinders along with conversions among SI units
- Introduction of surface area and volume of pyramids, cones, and spheres in problem situations
- Relate volumes of pyramids and cones to volumes of corresponding prisms and cylinders

Semester 2 has 82 Instructional Days. We will need at least 3 for review.

Materials Needed:

Scientific Calculator
Pencils, Pen, Paper
Binder & paper for notes and exercises
Duotang for tests & quizzes

Evaluation:

Quizzes / Assignments	15%
Tests	55%
Exam	30%

The pace of this course will be rapid, students will be expected to maintain excellent attendance. In the event of an absence, students are responsible for all missed work. If a student is absent for a test without a valid excuse, they will be given a mark of zero. It will be the responsibility of the student to present a satisfactory written excuse and arrange to write a missed test on his or her own time.