**Wheatmore High School**

**Math II**

**Mr. Hall Fall 2014**

**Course Information**

Math II extends the principals of Math I by using the principals of higher Algebra and Geometry and reinforcing problem solving, communication, reasoning and connections. The following are emphasized:

1. Equations
2. 3-D Geometry
3. Systems of equations and inequalities
4. Statistics
5. Polynomials and rational expressions
6. Functions in Trigonometry
7. Quadratic functions
8. Polynomial functions
9. Triangle congruency
10. Probability

Math II is an NCFE course. The students NCFE (North Carolina Final Exam) score will be used to represent 25% of the student’s final grade. All students must take NCFE!

**I. Classroom Preparation**

* **You will need the following items in class with you every day:**
* One (1) 3-ring binder with **loose-leaf paper**
* Spiral notebook
* Pencils (Mathematicians don't use pens!)
* 1 Box of Kleenex (for the classroom) -OR- 1 Bottle of Hand Sanitizer

**II. Classroom Rules & Procedures**

* **Follow the 5 P’s, please ☺**
  + BE PROMPT: Arrive to class on time and attend to necessary duties before class begins. Turn in assignments in a timely manner.
  + BE PREPARED: Always come to class with the items listed above. Have all materials ready to go at the start of class so that they will already be there when you need them.
  + BE PRODUCTIVE: We have a lot to do in not a lot of time (yes, 1.5 hours is short). It is important that we remain on task during the instructional period so that we can cover everything. I would be more than happy to talk about the big game or hear about your weekend in between classes. ☺
  + BE POLITE: The classroom should be a learning environment for everyone. Be respectful to your teacher and your peers. Only one person talks at a time, unless we are doing a group activity. Raise your hand before you speak. Remember the Golden Rule: “Treat others as you wish to be treated.”
  + BE POSITIVE: Always have a positive attitude

**III. Grading System**

* **Grades will be determined by:**

|  |  |
| --- | --- |
| Homework | 10% |
| Classwork | 20% |
| Quizzes | 25% |
| Tests & Projects | 45% |

**Homework:** Homework is checked several times a week for completion. Grading procedures are described in the table below***. NOTE: All work must be shown in order to receive credit for that homework assignment.*** Solutions will be posted and questions discussed as a class after each assignment has been checked.

|  |  |
| --- | --- |
| 0 | No questions have been attempted or only answers are given and no work is shown. |
| 1 | Some questions have been attempted and work is shown. |
| 2 | Half of the assignment has been attempted and work is shown. |
| 3 | Most questions have been attempted and work is shown. |
| 4 | All questions have been attempted and all work is shown. |

**Quizzes:** Quizzes will be given approximately once a week to judge progress in obtaining the unit’s objectives.

**Tests/Projects:** A unit test will be given at the end of each unit. These tests will be **cumulative** meaning that material from previous units is still fair game. Students will take a cumulative final exam at the end of the course. Also, projects will be given on occasion during the semester and will count the same as a test.

**Retests:**In the event of an unsatisfactory test grade, a retest can be given and the final test grade will be calculated using the average of the original and retest scores. All retests must be taken within three (3) school days of receiving the graded test. ***It is up to the student to request and schedule a retest.***

**IV. Absences/Tardies**

* Students cannot have more than 5 absences in any class period during a semester. A student will be denied credit when he/she exceeds 8 absences in a class.
* If you are absent from class, you are required to make up ALL work including homework, quizzes, tests, and projects.
* You are allowed 2 days for each day absent to make up any missing assignments.
* If you miss test review day (day before the test), know that you will still take the test on test day.
* Three tardies are allowed for each class. On the third tardy disciplinary action will begin. A parent will be contacted.
* If you miss test review day (the day before the test), Know that you will still take the test on test day.

**V. Tutoring and Office Hours**

I am available most mornings before school and will be staying late on Wednesdays for additional help. I will be available most other afternoons as well. My after school availability will be posted weekly in the classroom. If you need any help please come and see me!

**VI. Communications**

Email: [jhall@randolph.k12.nc.us](mailto:jhall@randolph.k12.nc.us)

Phone Number: 476-1500, Ext 7220

It’s a GREAT day to be a WARRIOR!!

Mr. Hall

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Please sign below stating that you have read these policies and procedures very carefully and understand the consequences if not properly followed. Return this portion to me along with the Student Information Sheet.

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Print Student Name Date Print Parent Name

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Student Signature Parent Signature

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Week** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Week 1  8/25 – 8/29 | Intro to Course:  Discuss Classroom Policies/Procedures  ***PRE-TEST*** | Foundations of Math 2  Rules of Exponents  (rational exponents) | Polynomials:  Add, subtract, multiply | **Review/Quiz** | Intro to Factoring:  GCF, DOS, and Grouping methods |
| Week 2 9/1 – 9/5 | **Holiday** | Factoring:  X-factor with trinomials | Solving Quadratics by Factoring | Solving Quadratics using the Quadratic Formula | Different Forms of Quadratics |
| Week 3  9/8 – 9/12 | Modeling with Quadratics | Modeling with Quadratics/Review | **Unit Test #1:**  **Quadratics** | Linear and Literal Equations | Linear Equations and Inequalities |
| Week 4  9/15 – 9/19 | Absolute Value Equations and Inequalities | **Review/Quiz** | Graphing Linear Inequalities | Solving Systems by Graphing  (Equations and inequalities) | Linear Programming |
| Week 5  9/22 – 9/26 | Linear Programming | **Review** | **Unit Test #2:**  **Equations, Inequalities, and Systems** | Graphs of Polynomials  **Progress Reports** | Transformations of Equations |
| Week 6  9/29 – 10/3 | Radical Equations | Radical Equations continued…  Modeling with Radicals | Exponential Modeling | Exponential Modeling | Review |
| Week 7  10/6 – 10/10 | **Unit Test #3: Functions** | Piecewise Functions | Modeling with Piecewise Functions | **Review/Quiz** | Introduction to Geometry  (key vocabulary) |
| Week 8  10/13 – 10/17 | Identifying Angles and Triangles | Equations with Angles and Triangles | Equations with Special Triangles  (equilateral, isosceles and midsegment) | Triangle Congruence | Triangle Congruence |
| Week 9  10/20 – 10/24 | Review | Ratios and Proportions  (divide segments into given ratios | Similar Polygons  (scale factor and correspondence) | Similar Triangles | Review |
| Week 10  10/27 – 10/31 | **Unit Test #5:**  **Similarity** | **1st day of second quarter**  Intro to Right Triangle Trigonometry:  Pythagorean Theorem | SOHCAHTOA | **2hr early dismissal**  SOHCAHTOA | **Teacher Workday** |
| Week 11  11/3 – 11/7 | SOHCAHTOA & Review | **Unit Test #6: Right Triangle Trigonometry** | Intro to Transformations/  Translations | Reflections | Rotations |
| Week 12  11/10 – 11/14 | **Report Cards**  Dilations | **Veterans Day**  **No school** | Review | **Unit Test #7: Transformations** | Intro to 3D Geometry:  Cross Sections and Solids of Revolution |
| Week 13  11/17 – 11/21 | S.A. of Prisms and Cylinders | S.A. of Pyramids and Cones | Volume of Prisms, Cones, Cylinders, Pyramids | S.A. and Volume of Spheres | Composite Solids |
| Week 14  11/24 – 11/28 | Modeling with 3D Geometry | Modeling with 3D Geometry & Review | **Thanksgiving**  **No school** | **Thanksgiving**  **No school** | **Thanksgiving**  **No school** |
| Week 15  12/1 – 12/5 | **Unit Test #8: 3D Geometry** | Intro to Stats | Central Tendency, Spread, Variance | **Progress Reports**  Review Regression | Venn Diagrams and Set Theory |
| Week 16  12/8 – 12/12 | Theoretical and Experimental Probability | Probability Distributions and Frequency Tables | Compound Probability and Multiple Events | Conditional Probability | Review |
| Week 17  12/15 – 12/19 | **Unit Test #9: Statistics** | Review | Review | Review | **2 hr early dismissal**  Review |
| Holiday  12/22 – 1/2 | **Christmas Break** | | | | |
| Week 18 1/5 – 1/9 | Review | Review | Review | Review | Review |
| Week 19  1/12 – 1/16 | **Exams** | **Exams** | **Exams** | **Exams** | **Exams**  **Last day of Fall Semester** |

Semester Planner – Fall 2014