INCARNATE WORD *Academy*
A COLLEGE PREPARATORY HIGH SCHOOL FOR YOUNG WOMEN

Teacher: Lynette Hampton, Rm A306
Contact: 314-725-5850, ext. 1150, lhampton@iwacademy.org
Webpage: http://lhamptoniwa.weebly.com

Course Description: Honors Algebra 2 is the third course in a sequence of honors college preparatory courses. Students will review fundamental principles and operations initially learned in Algebra 1 and then expand and go more in-depth into these concepts. The new concepts covered in this course include irrational numbers, complex numbers, matrices, exponential and logarithmic functions and conic sections.   Students will also expand on trigonometry learned in Geometry. Algebraic manipulation and application will be emphasized

Resources/Materials used for this course:
- Textbook: *Pearson: Algebra 2 – Common Core*
- Web pages: MathXLforSchool.com, classroom.google.com, edpuzzle.com, desmos.com/calculator, geogebra.org
- Calculator: TI-84 graphing calculator
- Binder with loose leaf & graph paper; PENCILS; highlighters

Course Goals:
- Students will perform mathematical operations on sets of numbers and algebraic expressions.
- Students will solve one-variable equations and inequalities.
- Students will solve two-variable linear systems of equations and inequalities.
- Students will use problem solving skills to solve application problems.
- Students will simplify polynomials and rational expressions.
- Students will graph relations, functions, and inequalities.
- Students will use properties of trigonometric functions to solve triangles.

LAP's:
All students will receive access to a copy of the LAP packet at the beginning of each unit. LAP documents will be posted on Ms. Hampton's Weebly page and Google Classroom page.

LAP 1: Functions, Equations, and Graphs (Ch. 2) – properties of functions, writing and graphing linear functions/inequalities, linear modeling, and families of functions with transformations

LAP 2: Linear Systems (Ch. 3) – solving linear systems using graphing, algebra and matrices, and linear programming

LAP 3: Quadratic Functions and Equations (Ch. 4) – graphing and writing rules for quadratic functions, modeling with quadratics, solving quadratics algebraically and graphically, and complex numbers

LAP 4: Polynomials and Polynomial Functions (Ch. 5) – properties and graphing of polynomial functions, solving polynomial equations and modeling with polynomials

LAP 5: Radical Functions and Rational Exponents (Ch. 6) – operations of roots/radical expressions, solving and
graphing radical equations, and operations of functions

LAP 6: Exponential and Logarithmic Functions (Ch. 7) – properties and graphing exponential/logarithmic functions
and solving equations

LAP 7: Rational Functions (Ch. 8) – properties and graphing of rational functions, operations of rational expressions,
and solving rational equations

LAP 8: Trigonometry (Ch. 13) – calculating trig functions of general angles and solving triangles (right and oblique)

LAP 9: Quadratic Relations and Conic Sections (Ch. 10) – writing and graphing equations of conic sections

LAP 10: Matrices (Ch. 12) – properties and operations of matrices

Grading Policies:
1. Assignments should be submitted on time. It is your responsibility to communicate with Ms. Hampton if you
encounter difficulty meeting this expectation.

2. If you miss a class, it is your responsibility to get the class material and homework. Materials can be found on
Ms. Hampton's Google Classroom page. Ms. Hampton's Weebly page will link you to her Google Classroom Page.

3. Utilize Open Lab time to seek additional help from Ms. Hampton or any other math teacher. Please sign my open
lab sheets on the large bulletin in my room when you know that you will be attending one of my open labs. This lets
me know to expect you at that time. Open Lab rules are posted in my room. *Do not* come to my open lab if you do
not have math related work. The reason for open labs is for students to obtain extra help in subject areas.   In
addition, Sr. Mary Kay is available on Wednesdays and Fridays from Mod 1 – 10. She is another wonderful resource
for math help.

4. We will follow the **IWA Formative Assessment Late Work Policy**. An NLP may not be used for any quiz.

5. The grading will be based on total points. However, the following is a *general* guideline for weights:
       Formative: Assignments/Quizzes - approximately 25% of semester grade
                        - Daily Assignments (10 pts)
                        - Open Lab Assignments (10 – 20 pts)
                        - Quizzes (20 – 50 pts)
                        - Approximately 30% of total LAP points
       Summative: LAP Tests/Projects - approximately 60% of semester grade
                         - LAP Tests given at the end of LAP and taken in Testing Center.
                         - Projects will be slotted based upon depth and importance. They will be categorized as a test.
                         - Approximately 70% of total LAP points
       Exam: Final Exam - 15% of semester grade
                        - Given at the end of each semester. It is cumulative for the current semester.
                        - The second semester exam is typically more difficult than first semester due to the increase of
                          difficulty of the material covered in semester 2.
                        - Sophomores in this course will take the second semester exam during the junior/senior exam
                          schedule. For the remainder of second semester, sophomores will complete a project.

6. You can view your current grade by looking at PowerSchool. Grades will be entered within five school days of the due date of assignment/test.

7. If your grade falls to a 70% or below, your parent will be contacted, and you may not be approved to attend a field trip.

8. We will follow the **IWA Retake/REDO Policy**. Please see Ms. Hampton's attached Retake/REDO Contract.

Student Expectations:
1. **Take responsibility for your own actions -** Integrity is always expected. Students are expected to uphold the following class values: courtesy, honesty, respect and a positive attitude.
2. **Arrive every day to class on time**
3. **Arrive prepared** - Students are expected to come to class with their completed assignments, pencil, paper, binder, book, calculator, BYOD and other required materials.
4. **Maintain learning atmosphere** – Students have a responsibility to themselves and to their classmates to help maintain a learning atmosphere in the classroom.
5. **Participate** - My goal is to help everyone enjoy and learn math. I will do my best to present the material in the best possible manner, from several points of view. Class participation and assignments are very critical.
6. **Prepare** – You must prepare appropriately for summatives. Relying on the REDO process to improve a score instead of adequately preparing ahead of the summative can place undue stress on yourself because you will have added extra work, extra contact time with me and Wednesday morning attendance. In addition, we will have progressed ahead in class to a further LAP.

I reserve the right to make changes to this syllabus***

HAMPTON – HONORS ALGEBRA 2-TRIG
SYLLABUS ACKNOWLEDGEMENT
2018-2019

I have read the Honors Algebra 2-Trig Syllabus and I understand the policies and consequences. I realize that it is my responsibility to fulfill the requirements of each LAP and to make up any missed work.

_____   _____

Signature of Student   **Date**

My daughter has shared this syllabus with me and I am familiar with its content.

_____   _____

Signature of Parent or Guardian   **Date**