

Syllabus: Algebra II Math-U-See

Course Description

This course is designed to build on algebraic and geometric concepts. It develops advanced algebra skills and includes the study of conic sections. Fundamental skills of mathematics will be applied to such topics as equations and inequalities, exponential relationships, quadratic and polynomial equations, rational expressions, imaginary and complex numbers. Other topics include understanding and applying the binomial theorem; applying analytic geometry to conic sections; solving simultaneous equations (linear and conic) using graphing, substitution, and elimination; applying basic algebra to problems involving ratios and proportions, coins, distance, rate and time; using the distance and midpoint formulas; solving equations with three variables; and understanding vectors. Math-U-See Algebra 2 meets the Algebra II requirement for the VSA Associate Level diploma only. Homework will average 4-6 hours per week.

Course Learning Objectives (CLO)

- Understand linear, polynomial, quadratic, and exponential relationships to solve equations.
- Build upon concepts in Algebra 1 and Geometry to apply more complex problem-solving techniques in real-world situations.
- Understanding the intricate design of God's creation through the study of conic sections.
- Expand the knowledge of one dimensional graphing to two dimensional with the understanding of position and magnitude in the study of vectors.

Attendance and Participation

Attendance, while not graded in this course, will nevertheless be recorded by the students' teacher, as students are required to attend all scheduled class sessions and actively participate. It is expected that students will view archives of any missed classes as they are responsible for obtaining any notes or assignments when a class must be missed.

Students will receive quarterly grades for Participation. A percentage of the final grade will be attributed to *relevant class participation*, which typically includes raising their hands, commenting regularly via microphone/webcam, and using the chat box to contribute to the academic conversation. A grading rubric, which contains the percentage attributed to Relevant Class Participation for this course, is located on the course page.

Assignments and Assessments

All exams should be taken in one sitting and proctored by an adult. Unless directed by the teacher, students are not permitted to use any helps, books,

notes or the Internet on any portion of tests. All tests are due at 11:55 PM ET on the date shown. Specific instructions will be provided by the instructor.

Evaluation

The final grade is determined on the following basis:

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| • Relevant Class Participation | 15% |
| • Homework | 10% |
| • Quizzes | 10% |
| • Tests | 35% |
| • Midterm Exam | 15% |
| • Final Exam | 15% |

Grading Scale

The following grading scale will apply for all assignments and final grades.

100% – 90% = A; 89% - 80% = B; 79% - 70% = C; 69% - 60% = D; 59% - 50% = E; 49% - 40% = F. All grades are rounded to the nearest whole number.

Late Work

If a student fails to submit any assessment by the due date, it is considered “late.”

- Assignments submitted 0-24 hours late will result in a 10 point reduction off earned grade.
- Assignments submitted 24-48 hours late will result in a 20 point reduction off earned grade.
- Assignments submitted 48-72 hours late will result in a 30 point reduction off earned grade.
- Assignments over 72 hours late will not be accepted and the student will receive a zero.
- Parent may request an extension from their child’s teacher *prior to the due date* or in the case of an emergency.

While we love grace and the opportunity to exercise it, we also desire to instill a sound sense of responsibility in our students, hence these expectations pertaining to late work.

Exam/Test Retakes

A student may retake ONE failed test/exam per semester, with a maximum score of 70%. There are no retakes on midterm or final exams. If the retake score is lower than the original score then the student will receive the higher of the two.

Academic Dishonesty

Cheating on any assignment is considered academic dishonesty. This includes plagiarism in any form. Cheating will be dealt with in the following manner:

- If a student is caught cheating, he will receive a zero on the assignment and will be placed on academic probation for the remainder of the school year.
- If the same student is caught cheating again, he will likely be expelled.
- No refunds will be granted for students who are expelled due to cheating.
- A Disciplinary Action Form will be submitted by the student's teacher for any instance of academic dishonesty.

Textbooks

The books needed for the class can be purchased through Veritas Press. It is extremely important that the student has the correct version/edition of these materials, and that they be ordered timely so as to have no interruption in a student's progress.

Algebra II Math-U-See Course Kit (003352)

Course Calendar

See Course Assignment Sheet, located on the course page, for class dates, breaks and all assignments and assessments. Class dates and breaks can also be found on the current academic year calendar.