

St. Mary Catholic Schools
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Algebra II Syllabus
I. PHILOSOPHY

The St. Mary Mathematics Department believes that our students deserve and need the best mathematics education possible; one that enables them to fulfill personal ambitions and career goals in an everchanging world. Those who understand and can do mathematics will have significantly enhanced opportunities and options for shaping their futures. The St. Mary's staff needs to provide for the mathematical needs of students by giving attention to:

- The acquisition of necessary basic skills,
- Critical thinking in multidisciplinary areas,
- Problem solving,
- And the use of tomorrow's technology.

The St. Mary's staff recognizes that this should be accomplished incrementally through continued practice. Continued practice

- Means that fundamental skills and concepts are practiced and reviewed throughout the year.
- Provides the time and experiences necessary for concepts to become a part of the student's longterm learning.
II. PRE-REQUISITES

Algebra I and Geometry
III. COURSE DESCRIPTION
This course will follow the South Dakota State Content Standards adopted in 2004. It is designed build on to what the students learned in Algebra I and Geometry. The student will review systems of equations and all functions. They will work with matrices, quadratic functions, exponential and logarithmic functions, polynomial functions, and radical functions. They will also explore conic sections and trigonometry. Many connections will be made to geometry, statistics, probability, and discrete mathematics.
IV. CHAPTER OUTLINE

1. Solving Equations and Inequalities
2. Linear Relations and Functions
3. Systems of Equations and Inequalities
4. Matrices
5. Polynomials
6. Quadratic Functions and Inequalities
7. Polynomial Functions
8. Conic Sections
9. Rational Equations \& Expressions
10. Exponential and Logarithmic Relations
11. Sequences and Series
12. Probability and Statistics
13. Trigonometric Functions
14. Trigonometric Graphs and Identities
V. COURSE REQUIREMENTS

- Completion of all daily work, graded assignments, quizzes, projects, and tests
- Completion of binder (tests and quizzes)
- There will be behavior points daily (each student will begin the class with two points and lose them according to their actions)
- Tests will be given at the end of each chapter. Daily concept quizzes will be given (3-5 questions and allowed 6 to 10 minutes to complete depending on number of questions. They will be able to come after school to finish if more time is needed but it has to be done the day the quiz was given). Homework will be checked daily. Occasional problem solving, cooperative learning, or journal writing activities will be done in class. These will be graded on a basis of complete or incomplete.
VI. GRADING SCALE

Class grades and grade points are issued based on percentage ranges.

| Percent | Grade | Grade Points |
| :---: | :---: | :---: |
| $100+$ | $\mathrm{A}+$ | 4.0 |
| $97-99$ | A | 4.0 |
| $94-96$ | $\mathrm{~A}-$ | 3.66 |
| $91-93$ | $\mathrm{~B}+$ | 3.33 |
| $88-90$ | B | 3.0 |
| $86-87$ | $\mathrm{~B}-$ | 2.66 |
| $83-85$ | $\mathrm{C}+$ | 2.33 |
| $80-82$ | C | 2.0 |
| $77-79$ | $\mathrm{C}-$ | 1.66 |
| $74-76$ | $\mathrm{D}+$ | 1.33 |
| $71-73$ | D | 1.0 |
| $68-70$ | $\mathrm{D}-$ | .66 |
| $67-$ below | F | 0 |

VII. INSTRUCTIONAL MATERIALS

Textbook: "Algebra II"
Glencoe-McGraw Hill, 2005
Assessment
Daily work/behavior (20.72\%), quizzes/vocabulary tests (15\%), tests (35\%), semester exams (14.28\%), projects, Binder grade (15\%)

Goals for a SUCCESSFUL Classroom:
a. Be in the classroom on time, with all necessary tools (Book, assignments, paper, pencil, and calculator)-You will receive one freebie and any times after that will be a tardy
b. Actively participate in classroom activities. This will be an important factor in how well you learn the material and succeed in this class. Please ask questions. Remember there are no dumb questions and someone else may be wondering the same thing you are.
c. Be respectful and supportive of your classmates, your teacher, your school, and the property of others. In other words, treat others as you would want to be treated!

Supplies
a. Paper, pencil, calculator, and textbook are required every day in class. A 3-ring binder is also needed for our portfolio.

Hall Passes
b. To go to another classroom, you will need to have a pass from that teacher before coming to class.

Absences/Assignments
c. If you are absent, it is your responsibility to see me about the notes/assignments for the day(s) you missed. You will have two days to complete the make-up work for each day you were gone.
d. If you know ahead of time that you will be absent, you will need to see me to get the assignment before you leave.
e. We will follow the school policy on tardies.

Retakes
f. You will be allowed to re-write any test or quiz that you have scored an $85 \%$ or less on and receive $1 / 2$ points back. (this will need to be done in class on the day assigned)

Extra Help
g. I will be available in my room before school from 8:00-8:45 and after school until 4 unless previous arrangements have been made. You may also call me at home before 9 p.m. at 428-4907.
h. I will be available on Tuesday and Thursday until 4:30 or 5 for tutoring. If you are struggling, I strongly encourage you to seek help at this time. However if no one is here by 4, I will leave.
i. I want you to be successful in this class!! Get extra help as soon as you encounter difficulties. Don't wait until you are behind on a whole chapter's work.

Together
Everyone
Achieves
More

