

Course Syllabus: ALGEBRA 2

Cicely Tyson Middle/High School
ALGEBRA 2
Monday through Friday
Full year
Credit hours: 5.0

Mr. Garcia
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Welcome and Introduction

“Welcome to Algebra 2. I’m your instructor Mr. Garcia. We’ll be together for the next 40 weeks. Algebra II is a second-year algebra course with an overall theme of problem solving. The overriding themes of the course are: algebraic manipulation, equation solving, graphing, and probability. This Algebra II course is designed to prepare students for college level mathematics.

Course Theme / Student Expectations

Remember the following: You should never think it's easy, it doesn't matter how good you are!

You are expected to:

- ✓ Attend class daily and participate in all class activities
- ✓ Be respectful to others
- ✓ Complete all class assignments, projects, and homework
- ✓ Study and pass all tests and quizzes
- ✓ Comply with all school and district rules.

COURSE MAIN TOPICS

- Factoring
- Investigation
- Solving Equations
- Functions
- Sequences
- Exponential Functions
- Variable Exponents
- Parabolic Equations
- Systems of Equations
- Rational Expressions
- Logarithms
- Polynomials
- Complex Numbers
- Probability
- Basic Statistics

Methods of Instruction

The course format consists of a combination of lectures, group work, student group activities, station rotations, project based learning and student interactions to help everyone achieve the course objectives.

Grading Policy

Your marking period grade will be based on:

| | |
|---------------------|-----|
| Tests and quizzes | 20% |
| Online Quizzes | 15% |
| Homework | 10% |
| Project | 15% |
| Portfolio | 10% |
| Perf.Task | 15% |
| Cycle Folder | 5% |
| Notebook | 5% |
| Class Participation | 5% |

Your final grade will be based on:

| | |
|--------------------------------|-----|
| 1 st marking period | 20% |
| 2 nd marking period | 20% |
| 3 rd marking period | 20% |
| 4 th marking period | 20% |
| Midterm Exam | 10% |
| Final Exam | 10% |

Grading Scale

| | |
|----|-----------|
| A: | 90 – 100% |
| B: | 80 – 89% |
| C: | 70 – 79% |
| D: | 65 – 69% |
| F: | 0 – 64% |

Attendance and Make Up Work

Absences will be excused for the following reasons: (1) illness or injury, (2) participation in a school event / competition, (3) death in the immediate family, (4) significant personal or family crisis, or (5) court appearance. Excused absences must be verified with a note including the date and reason for your absence, signed by your parent/guardian.

You will be allowed to make up assignments after an excused absence. Make up assignments are due within two days of your return to school.

Absences are recognized for the following reasons:

1. Absences to participate in official school/district activities (performances, field trips, athletic events, etc.)
2. Absences for medical reasons
3. College Visits
4. Pass indicating with Administrator/Guidance/Nurse/CST/Social Worker/Discipline
5. Passes indicating you are with another teacher must be cleared first by the period teacher if you are planning to be more than 10 min. late (optional wording).

If you miss class, make arrangements with me as soon as possible to arrange time for your make-up assignments. You are responsible for getting class notes from a classmate. Make-up assignments are due by the end of the class following the missed class (optional wording).

- Students must actively participate in class discussions and complete the class assignments in class.
- If you should receive an I or NG for the class, you must see me immediately so that we can make the necessary arrangements to help you change the grade. If you do not make an effort to change the I or NG, then your grade will be converted to an F.
- Every Friday starting on 09/12 , you will have a weekly quiz, covering material covered during the week. Unit test are given every 6 weeks from the beginning of the year.
- At the End of each Cycle you will have to complete a project and a performance task. Both of these assignments carry a heavy weight on your cycle grade. You must complete these assignments in class.
- Renaissance tests, which are given 3 times during the year, will also be part of your grade and they will count as a regular test.

Opportunities for Extra Support

By appointment only! If you require extra help, you need to see me and make an appointment.

How to Reach Me

See the information on the top of this syllabus.

1st Parent/Teacher meeting: Back to school night: Date yet to be determined

Required text/E-book/Online Resources Used

Text: Big Ideas Math, Ron Larson, Laurie Boswell

www.mathxcel.com

www.bigideasmath.com

Additional Materials: Graphing calculator (Texas Instruments TI-84 will be available in class)
Notebook (to organize your notes, assignments, and class work)

CYCLE 1/Unit Schedule

Topics/SLOs

| # | STUDENT LEARNING OBJECTIVES | CORRESPONDING CCSS |
|---|---|---------------------------|
| 1 | Use Properties of operations to add, subtract, and multiply complex numbers. | N.CN.1, N.CN.2 |
| 2 | Solve quadratic equations with real coefficients that have complex solutions. | N.CN.7A.REI.4.b |
| 3 | + Show that the fundamental Theorem of Algebra is true for quadratic polynomials | N.CN.9 |
| 4 | Interpret coefficients, terms, degree, powers (positive and negative), leading coefficients and monomials in polynomial and rational expressions in terms of context. ★ | A.SSE.1 |
| 5 | Restructure by performing arithmetic operations on polynomial/rational expressions. | A.APR.1, A.APR.2 |
| 6 | Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. <i>For example, calculate mortgage payments.</i> ★ | A.SSE.4 |
| 7 | Use an appropriate factoring technique to factor expressions completely including expressions with complex numbers. | A.SSE.2, A.APR.3, A.APR.4 |
| 8 | Explain the relationship between zeros and factors of polynomials and use zeros to construct a rough graph of the function defined by the polynomial. | A.SSE.2, A.APR.3 |

Assignments/projects/Assessments

- Homework will be assigned weekly (Handouts covering each of the topics discussed in class)
- Project: Line of best fit (population growth)
- Weekly quizzes (covering topics discussed during the week.
- Unit Assessment I

*Cicely L. Tyson Community School for Performing and Fine Arts Middle/High School where:
" We aim high. We soar high."*