



## Algebra 2: Part 1

**Course number:** MA053\_20\_1

**Credits:** .5 credit

**Prerequisites:** None

### INSTRUCTIONAL TEAM

**Teacher:** Ms. Sherri Billings

**Email:** [sbillings@jmhs.com](mailto:sbillings@jmhs.com)

Our Academic Advisors are also available to help you when you need it. They are trained to provide answers to your questions about the course or program.

**Phone:** 1-800-224-7234

**Hours:** 8:30AM – 8:30PM (Eastern Standard Time), Monday-Friday

### MAIL

James Madison High School

6625 The Corners Parkway, Suite 500

Norcross, GA 30092

### Course Materials

All of your course materials are included in this course experience. You'll find it easiest to study this course by following these steps:

- Look over the syllabus, paying close attention to the course and lesson objectives.
- Read each objective. Pay close attention to main concepts and definitions.
- Complete each assignment as you come to it.
- When you've completed each assignment, look over the lesson review.
- When you're confident you understand the material, complete the lesson exam.

### COURSE DESCRIPTION

The Algebra 2: Part 1 course focuses on graphing, interpreting and transforming functions, including linear, absolute value, quadratic, and polynomial functions. You'll solve quadratic equations, work with complex numbers, and factor polynomials. Most importantly, you'll apply this new understanding to everyday situations through new problem-solving techniques.



## LEARNING OBJECTIVES

After completing Algebra 2: Part 1, students will be able to:

- Write and graph linear and absolute value functions
- Write quadratic equations that produce parabolas
- Use five strategies for solving quadratic equations
- Apply the Fundamental Theorem of Algebra to polynomials

LESSONS	TOPICS
Lesson 1:	Introduction to Functions
Lesson 2:	Quadratic Functions
Lesson 3:	Quadratic Equations and Complex Numbers
Lesson 4:	Polynomial Functions
Graded Exam:	Final Exam

## GRADING

The following point totals correspond to the following grades:

POINTS	GRADE
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100-90	A
89-80	B
79-70	C
65-69	D
Below 65	F

James Madison High School allows 2 attempts on exams. If a student is not satisfied with his/her score on the 1st attempt, an exam may be resubmitted. The 2nd attempt is not required as long as the final course average is above 65%. The higher of the 2 attempts will be the score that counts towards the final average.

Exams are timed and once you begin an exam, the timer runs continuously, even if you leave the course. Refer to the exam instructions for the time limit (in most cases 3 hours), but the time limit cannot be spread over multiple days.



## GRADE WEIGHT

TOPIC	ACTIVITY	PERCENTAGE
<b>Lesson 1:</b> Introduction to Functions	Quiz	18%
<b>Lesson 2:</b> Quadratic Functions	Quiz	18%
<b>Lesson 3:</b> Quadratic Equations and Complex Numbers	Quiz	19.5%
<b>Lesson 4:</b> Polynomial Functions	Quiz	19.5%
<b>Graded Exam:</b> Final Exam	Assignment	25%

## ACADEMIC AND COURSE POLICIES

Please see the Academic Policies section in the [James Madison High School Catalog](#) for information on Course policies, including the Exam/Assignment Retake Policy, Grading Policy, Academic Honesty Policy, and Student Conduct Policy.



## Algebra 2: Part 2

**Course number:** MA054\_20\_1

**Credits:** .5 credit

**Prerequisites:** None

### INSTRUCTIONAL TEAM

**Teacher:** Ms. Rhonda Brookshire

**Email:** [rbrookshire@jmhs.com](mailto:rbrookshire@jmhs.com)

Our Academic Advisors are also available to help you when you need it. They are trained to provide answers to your questions about the course or program.

**Phone:** 1-800-224-7234

**Hours:** 8:30AM – 8:30PM (Eastern Standard Time), Monday-Friday

### MAIL

James Madison High School

6625 The Corners Parkway, Suite 500

Norcross, GA 30092

### Course Materials

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- Look over the syllabus, paying close attention to the course and lesson objectives.
- Read each objective. Pay close attention to main concepts and definitions.
- Complete each assignment as you come to it.
- When you've completed each assignment, look over the lesson review.
- When you're confident you understand the material, complete the lesson exam.

### COURSE DESCRIPTION

The Algebra 2: Part 2 course focuses on graphing, interpreting and transforming functions, including exponential, logarithmic, rational, and trigonometric functions. You'll also evaluate sequences and series. Most importantly, you'll apply this new understanding to everyday situations through new problem-solving techniques.



## LEARNING OBJECTIVES

After completing Algebra 2: Part 2, students will be able to:

- Solve and graph radical functions
- Solve and graph logarithmic functions
- Apply operations to rational expressions and functions
- Use sequence notation to write terms in a sequence
- Demonstrate an understanding of trigonometric functions by graphing

LESSONS	TOPICS
Lesson 5:	Radical Functions
Lesson 6:	Exponential and Logarithmic Functions
Lesson 7:	Rational Functions
Lesson 8:	Sequences and Series
Lesson 9:	Trigonometric Ratios and Functions
Graded Exam:	Final Exam

## GRADING

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POINTS	GRADE
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100-90	A
89-80	B
79-70	C
65-69	D
Below 65	F

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Exams are timed and once you begin an exam, the timer runs continuously, even if you leave the course. Refer to the exam instructions for the time limit (in most cases 3 hours), but the time limit cannot be spread over multiple days.



## GRADE WEIGHT

TOPIC	ACTIVITY	PERCENTAGE
<b>Lesson 5:</b> Radical Functions	Quiz	15%
<b>Lesson 6:</b> Exponential and Logarithmic Functions	Quiz	15%
<b>Lesson 7:</b> Rational Functions	Quiz	15%
<b>Lesson 8:</b> Sequences and Series	Quiz	15%
<b>Lesson 9:</b> Trigonometric Ratios and Functions	Quiz	15%
<b>Graded Exam:</b> Final Exam	Assignment	25%

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