

# **Geometry: Part 1**

Course number: MA043\_20\_1 Credits: .5 credit Prerequisites: None

### INSTRUCTIONAL TEAM

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 5051 Peachtree Corners Circle, Suite 200 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 Geometry: Part 1 course focuses on the properties of lines and angles. You'll perform translations and apply theorems to shapes. In this course, you'll discover how relevant geometry is to everyday life by exploring practical applications. You'll forge connections between mathematical topics and gain many powerful tools to help you negotiate logic problems and proofs, all of which will improve problem-solving skills.



## **LEARNING OBJECTIVES**

After completing Geometry: Part 1, students will be able to:

- Recognize the basic principles of Geometry
- Use deductive and inductive reasoning through writing proofs
- Prove that lines are either parallel or perpendicular
- Perform translations, reflections, rotations, dilations, and compositions of transformations
- Apply theorems to prove congruent triangles
- Use properties of similarity to complete proofs

LESSONS	TOPICS	
Lesson 1:	Basics of Geometry	
Lesson 2:	Reasoning and Proofs	
Lesson 3:	Parallel and Perpendicular Lines	
Lesson 4:	Transformations	
Lesson 5:	Congruent Triangles	
Lesson 6:	Similarity	
Graded Exam:	Final Exam	

### GRADING

The following point totals correspond to the following grades:

# POINTS GRADE

100-90	A
89-80	В
79-70	С
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**

ΤΟΡΙϹ	ACTIVITY	PERCENTAGE
Lesson 1: Basics of Geometry	Quiz	13.3%
Lesson 2: Reasoning and Proofs	Quiz	13.3%
Lesson 3: Parallel and Perpendicular Lines	Quiz	13.3%
Lesson 4: Transformations	Quiz	13.3%
Lesson 5: Congruent Triangles	Quiz	13.4%
Lesson 6: Similarity	Quiz	13.4%
Graded Exam: Final Exam	Assignment	20%

# ACADEMIC AND COURSE POLICIES

Please see the Academic Policies section in the <u>James Madison High School Catalog</u> for information on Course policies, including the Exam/Assignment Retake Policy, Grading Policy, Academic Honesty Policy, and Student Conduct Policy.





# **Geometry: Part 2**

Course number: MA044\_20\_1 Credits: .5 credit Prerequisites: None

### INSTRUCTIONAL TEAM

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

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### **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 Geometry: Part 2 course focuses on the properties polygons, circles, and three-dimensional figures. You'll apply theorems and trigonometric ratios to shapes. In this course, you'll discover how relevant geometry is to everyday life by exploring practical applications.



## **LEARNING OBJECTIVES**

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

- Calculate lengths of triangle components
- Prove properties of quadrilaterals
- Apply the Pythagorean Theorem and other trigonometry functions
- Calculate measures of a circle
- Calculate circumference, area, and volume of circular shapes

LESSONS	TOPICS	
Lesson 7:	Relationships with Triangles	
Lesson 8:	Quadrilaterals and Other Polygons	
Lesson 9:	Right Triangles and Trigonometry	
Lesson 10:	Circles	
Lesson 11:	Area and Volume	
Graded Exam:	Final Graded Exam	

### GRADING

The following point totals correspond to the following grades:

# POINTS GRADE

100-90	Α
89-80	В
79-70	С
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**

ΤΟΡΙϹ	ACTIVITY	PERCENTAGE
Lesson 7: Relationships with Triangles	Quiz	15%
Lesson 8: Quadrilaterals and Other Polygons	Quiz	15%
Lesson 9: Right Triangles and Trigonometry	Quiz	15%
Lesson 10: Circles	Quiz	15%
Lesson 11: Area and Volume	Quiz	15%
Graded Exam: Final Graded Exam	Assignment	25%

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