



# U.S. INTERNATIONAL CHRISTIAN ACADEMY

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| U.S.I.C.A. Course Outline/Syllabus  |   |  |
|---|---|--|
| <b>Grade/Course: GEOMETRY 1206310</b>   |   |  |
| <b>Grade Level: 11<sup>th</sup> High School</b>   |   |  |
| <b>A)TEXT BOOK: Glencoe Geometry, Student Edition [Hardcover]</b>   |   |  |
| <b>McGraw-Hill (Author)</b>   |   |  |
| <b>ISBN-10: 0078651069   ISBN-13: 978-0078651069  </b>  |   |  |
| <b>Order No.:</b> 1   | <b>Code:</b> GEO1002                                  | <b>Class Type:</b> Online  |
| <b>Resources:</b><br>Text book<br>Teacher works CD<br>Teacher interactive online<br>Links<br>Sky Conference | <b>Length:</b> 1 year                                 | <b>Instructional Supports:</b><br>Textbook, Magazines, Journals, Websites<br>Links, Conference, Comprehensive Reading Plan |
| <b>Area:</b> Mathematics  | <b>Credits:</b> 1                                     | <b>Total Numbers of class hours:</b> 300 hrs   |
| <b>Type:</b> Mandatory  | <b>Standards:</b><br>Florida Sunshine State Standards | <b>Prerequisite:</b><br>Students must have successfully passed Algebra.  |

## **B) Description:**

A full year, high school math course for the student who has successfully completed the prerequisite course, Algebra I. The course focuses on the skills and methods of linear, coordinate, and plane geometry. In it, students will gain solid experience with geometric calculations and coordinate plane graphing, methods of formal proof, and techniques of construction. By the end of the course, students will be expected to do the following:

- Understand defined terms, axioms, postulates, and theories.
- Apply rules of formal logic and construct proofs in two-column format.
- Know how to solve for angles given parallels, perpendiculars, and transversals.
- Demonstrate how to solve for sides and angles of triangles, quadrilaterals, and polygons.
- Understand trigonometric ratios and know how to use them to solve for unknown sides and angles in given triangles as well as application word problems.
- Be able to determine arcs, chords, and sectors of circles.
- Calculate perimeter, area, and volume of figures and solids.
- Graph lines and determine slopes, midpoints, and distances.
- Make geometric constructions on paper.
- Represent results of motion geometry (translation, rotation, reflection, dilation).

## **C) Objectives:**

1. is the study of two- and three-dimensional objects and their properties.
2. to develop in all students will learn geometric and their applications
3. to promote an awareness of Geometry

## **D) Contents**

### **Chapter 1**

Tools of Geometry

### **Chapter 2**

Reasoning & Proof

### **Chapter 3**

Parallel & Perpendicular Lines

### **Chapter 4**

Congruent Triangles

### **Chapter 5**

Relationships in Triangles

### **Chapter 6**

Quadrilaterals

### **Chapter 7**

Proportions & Similarity

### **Chapter 8**

Right Triangles & Trigonometry

**Chapter 9**

Transformations & Symmetry

**Chapter 10**

Circles

**Chapter 11**

Areas of Polygons & Circles

**Chapter 12**

Extending Surface Area Volume

**E. Methodology**

| <b>E) Academic Methodology:</b> |     |
|---------------------------------|-----|
| Tests                           | 30% |
| Writing Reports                 | 5%  |
| Homework                        | 20% |
| Class Work                      | 20% |
| Reading Assignment              | 25% |

**F) Book Reference:**

1. Geometry [Hardcover] by Ray C. Jurgensen and Richard G. Brown (Authors)
2. Tutor in a Book's Geometry Paperback by Jo Greig (Author), James R. Shiletto Ph.D (Editor)
3. Geometry: A Comprehensive Course (Dover Books on Mathematics) Paperback
4. McDougal Littell Geometry for Enjoyment & Challenge: Student Edition Geometry 1991 [Hardcover] MCDUGAL LITTEL (Author)

**H) Web Reference:**

<http://www.calculatorsoup.com/calculators/geometry-calculators.php>

[www.mathsisfun.com/geometry/index.html](http://www.mathsisfun.com/geometry/index.html)

[www.geometry.com](http://www.geometry.com)

[www.101science.com/Geometrylinks.htm](http://www.101science.com/Geometrylinks.htm)

[www.linkstolearning.com/links/geometry1.htm](http://www.linkstolearning.com/links/geometry1.htm)

[www.en.wikipedia.org/wiki/Link\\_\(geometry\)](http://www.en.wikipedia.org/wiki/Link_(geometry))

[www.math-play.com/Geometry-Math-Games.html](http://www.math-play.com/Geometry-Math-Games.html)

[www.linkstolearning.com/.../geometry-high-school.htm](http://www.linkstolearning.com/.../geometry-high-school.htm)

<http://www.mathsisfun.com/links/curriculum-high-school-geometry.html>  
[www.homeworkspot.com/high/math](http://www.homeworkspot.com/high/math)

**I. Journals:**

Algebraic & Geometric Topology  
Advances in Applied Mathematics  
Advances in Mathematics  
Advances in Theoretical and Mathematical Physics  
Algebra & Number Theory  
American Journal of Mathematics  
American Mathematical Monthly  
Analysis and Applications

**J. Magazines:**

Math Horizons

**K. Organizations:**

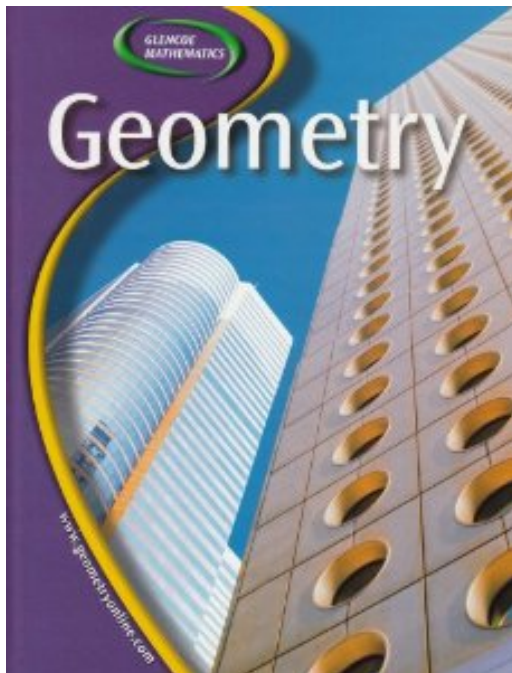
National Council of Teachers of Mathematics (N.C.T.M.)

**M. Comprehensive Reading Plan**

Students are required to read at least 1 book or their equivalent during each class as independent reading at-home. Students must also read for 30 minutes at home as part of their daily homework assignment in all subjects. Check your Class Reading Assignment at [www.USICAhs.org/CURRICULUM](http://www.USICAhs.org/CURRICULUM) and check free ebooks at [www.openlibrary.org](http://www.openlibrary.org).

## **Text Book Description**

Publication Date: January 1, 2005 | ISBN-10: 0078651069 | ISBN-13: 978-0078651069 | Edition: 1. Glencoe Geometry is the leading geometry program on the market. Algebra and applications are embedded throughout the program and an introduction to geometry proofs begins in Chapter 2.



## **ACADEMIC MISCONDUCT:**

Academic misconduct includes cheating (using unauthorized materials, information, or study aids in any academic exercise), plagiarism, falsification of records, unauthorized possession of examinations, intimidation, and any and all other actions that may improperly affect the evaluation of a student's academic performance or achievement, or assisting others in any such act or attempts to engage in such acts. Academic misconduct in any form is inimical to the purposes and functions of the school and therefore is unacceptable and prohibited.

Any faculty member, administrator or staff member may identify an act of academic misconduct and should report that act to the department head or administrative supervisor.

Students violating the standards of academic honesty are subject to disciplinary action including reduction of a grade(s) in a specific course, assignment, paper, or project; a formal or informal reprimand at the professorial, dean, or academic vice president level; expulsion from the class in which the violation occurred; expulsion from a program; or expulsion from the school.