Course Syllabus
MATH0701 – CBUA Algebra 1
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I. *COURSE DESCRIPTION*
This course is a prerequisite for all senior high math courses. Algebra is a form of mathematical shorthand that enables its user to conceive more easily and to solve practical mathematical problems. The language and properties of algebra are introduced with emphasis on such topics as solving, writing, and graphing linear equations and inequalities; functions and relations; systems of equations; statistical modeling applied to practical situations; polynomial operations and quadratic functions.

II. *COURSE OUTLINE*
1. **MODULE 1: Unit 1 Part 1 – Equations, Expressions, & Solutions**
   Unit 1 Part 2 – Creating and Solving Equations
2. **MODULE 2: Unit 2 – Inequalities**
3. **MODULE 3: Unit 3 – Functions**
4. **MODULE 4: Unit 4 Part 1 – Slope & Slope Intercept Analyzing Linear Relationships**
   Unit 4 Part 2 – Standard Form Analyzing Linear Relationships
5. **MODULE 5: Unit 5 Part 1 – Modeling Linear Functions and Systems by Graphing**
   Unit 5 Part 2 - Modeling Linear Functions and Systems by Elimination
   Unit 5 Part 3 – Modeling Linear Functions and Systems by Substitution
6. **MODULE 6: Unit 6 – Polynomial Operations**
7. **MODULE 7: Unit 7 – Radicals, Roots, and Number Operations**
8. **MODULE 8: Unit 8 - Quadratic Expressions and Equations**
9. **MODULE 9: Unit 9 - Quadratic Functions and Modeling**
10. **MODULE 10: Unit 10 – Assessment & Performance**

III. *READING & MATERIALS*
1. **Texts/Reading:**
   (1) All CBU/CBUA courses use the Bible as a primary textbook. Translations used for coursework include any of the following: NASB, ESV, KJV, and NKJV. Other translations/versions may be used for complementary study and research.
   (2) Delta Math: DeltaMath (www.deltamath.com)   Login credentials through course
   (3) Supplemental Textbook: BJU Press: Geometry (Bob Jones University Press)

2. **Supplies**
   (1) Geometry Tools: Construction Set;
   (2) Scientific Calculator

IV. *LEARNING OUTCOMES*
1. **Course Learning Outcomes (CLO's)**
   (1) To provide foundational geometric reasoning and logic that is a basis for critical thinking skills needed to move into higher math courses (Algebra 2 / College Algebra / Calculus)
   (2) To provide strategies to assess real life situations with reason and logic generated through understanding the processes and procedures of geometric proofs and theorems.
   (3) To prepare learners to perform logic processing using proofs and theorems while applying critical thinking strategies to both real-world problems and geometric relationships.

2. **Program Learning Outcomes (PLOs)**
   (1) To prepare Learners for roles in transformative education teaching and service.
   (2) To provide Learners a foundation for effective individual and organizational leadership in diverse environments.
   (3) To ensure Learners demonstrate worldview foundation for empowering people and building communities.
   (4) To help Learners formulate a Biblical approach to transformative learning and leadership and how mathematical, algebraic, and geometric constructs support the Biblical Worldview.

3. **CBU Learning Outcomes (CBULOs)**
   (1) *Critical Thinking, Problem Solving, and Research* – Learners will demonstrate ability to think critically, solve problems, and conduct interdisciplinary research at a level appropriate to their program applying Algebraic proofs and logic to solving problems.
   (2) *Personal Growth* – Learners will understand how learning is related to personal growth, and will be challenged to grow in their thinking, communication, conduct, and engagement with others.
   (3) *Skills Development* – Learners will advance in skills related to their area of learning, demonstrating a level of competency appropriate to their program.
   (4) *Social Responsibility* – Learners will appreciate the diversity in and value of others as designed by our Creator, and will grow in willingness and capability to serve others.
   (5) *Worldview Applications* – Learners will become capable at thinking from a worldview perspective and will understand the relationship of description and prescription, using algebra concepts, proofs, and constructs so that they can ground their actions in sound principles.

V. *ASSIGNMENTS AND GRADING*
   A. Grading will be based on accumulated points in each of the following categories:
   (1) Assessments (**50%** of grade): Includes module assessments and quizzes to show learner has mastered the material by the end of the module.
   Includes Final Assessment = 15%
   (2) Assignments (**40%** of grade): Assignments include, but are not limited to: Checks for understanding, Delta math assignments, teams' assignments, and worksheets.
   (3) Application & Analogy (**10%**) These assignments/projects include written analysis of Algebraic problems, applying Algebra to real-world careers, and using analytic skills to find algebraic co-relationships in mathematics.

VI. *GRADING SCALE*
   91-100%   A
   81-90%   B
   71-80%   C
   61-70%   D
   0-60%   F
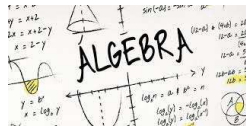
VII. *CARNEGIE UNIT CREDIT HOUR EQUIVALENT*

Total Hours of Module Content:	**40 hours**
Total Hours of Reading Content:	**20 hours**
Total Hours of Minor Assessments:	**20 hours**
Total Hours of Major Assessment:	**30 hours**
Total Hours of Competency Assessment:	**25 hours**
	135 Hours