

	<p>Equip Biblical Institute</p> <p>Church Planting * Team Leadership * Pastors Institute</p> <p>2100 Greenfield Drive, El Cajon, CA 92019</p>	
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Mathematics for General Education

Professor:

Training Center City:

Semester and Year:

Course Description

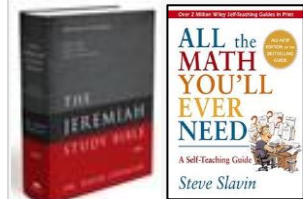
This course focuses on how to apply mathematics to real life situations. Topics include whole numbers, multiplying and dividing fractions, adding and subtracting fractions, decimals, ratio and proportion, percent, measurement, geometry, basic algebra, statistics, and applying mathematics to personal finances and business math. This course will also enable parents to assist children with their math homework.

Course Design

This 14-week course is designed to equip pastors, church planters, and next-generation leaders with Bible knowledge, Christian character, servant leadership, and disciple-making skills with the goal of life change. It addresses the learning styles of adults through active discussion, charts, visuals, Internet resources, team-building, and presentations. To ensure transfer of credit, changes to this course syllabus must be approved by both Equip Biblical Institute and Southern California Seminary. Over 1,200 leaders have completed EBI courses. *Suggestions for improving course design are appreciated.*

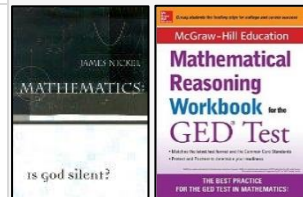
Required Textbooks

1. *Jeremiah Study Bible*. Annotated by Dr. David Jeremiah. Worthy Publishing, 2013. [CBD](#) or [9781936034895](#)
2. Dr. Steve Slavin. *All the Math You'll Ever Need*. New York: JohnWiley, 1999. [9780471317517](#)
3. *McGraw-Hill Education Mathematical Reasoning Workbook*. McGraw-Hill, 2014. [9780071831833](#)



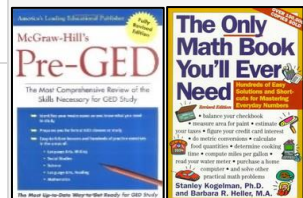
Additional Books for Pastors, Leaders, and Advanced Students

4. *McGraw-Hill's Pre-GED: The Most Comprehensive Review of the Skills Necessary for GED Study*. McGraw-Hill, 2003. [9780071428149](#)
5. Dr. Stanley Kogelman and Barbara Heller. *The Only Math Book You'll Ever Need*. New York: William Morrow, 1995. [9780062725073](#)
6. James Nickel. *Mathematics: Is God Silent?* Ross House Books, 2001. [9781879998223](#)



Internet Resources

[About Education Free Online Math Classes](#) * [Basic-mathematics.com](#) * [Kahn Academy](#) * [Math.com](#) * [Math.About.com](#) * [TEDEd Mathematics](#) *



Professors – [Click here to receive the Notes by email.](#) The intent of this course is to equip you with the Word of God, to strengthen your character and integrity, and to develop your relational and servant-leadership skills for the glory of God.

Learning Outcomes

The student who successfully completes this course will be able to:

1. Apply and teach children and others how to do multiplication and division.
2. Apply and teach how to work with decimals and fractions.
3. Apply and teach how to do word problems.
4. Apply and teach how to work with percentages and negative numbers.
5. Apply and teach how to isolate x and work with exponents and square roots.
6. Apply and teach how to work with ratios and proportions.
7. Apply and teach how to find areas and circumferences.
8. Apply and teach how to solve rate, time, and distance problems.
9. Apply and teach how to work with interest rates, big numbers, and statistics.
10. Apply and teach how to do personal finances and business math.
11. Coach other leaders to develop Christian character through our identity in Christ, gratitude for the Gospel, the spiritual disciplines, personal revival, the fruit of the Spirit, and the seven virtues with the goal of transformational discipleship.

Methods of Instruction

Instruction emphasizes active learning, problem-based learning, project-based learning, presentation-based learning, team-based learning, reflection, discussion, interactive lecture, collaboration, visuals, term papers, and exams, with the goal of long-term and real-world learning that results in life-change and leadership skills. The major pedagogical premise of this course is that students should be treated like the servant-leaders they are becoming.

Dr. Gary C. Woods has served as the Bible Department Chairman and Registrar at Southern California Seminary. Dr. Woods has taught for Liberty University, Luther Rice Seminary, San Diego Christian College, and Southern California Seminary. He has a Doctor of Education in Technology and Learning from Alliant International University, a Master of Divinity in Missions from Southwestern Baptist Theological Seminary, and a Bachelor of Science in Cross-Cultural and Pastoral Ministry from Liberty University. He has served as a pastor and church planter with the North American Mission Board, and as an elected governing board member of GUHSD with over 20,000 high school students.



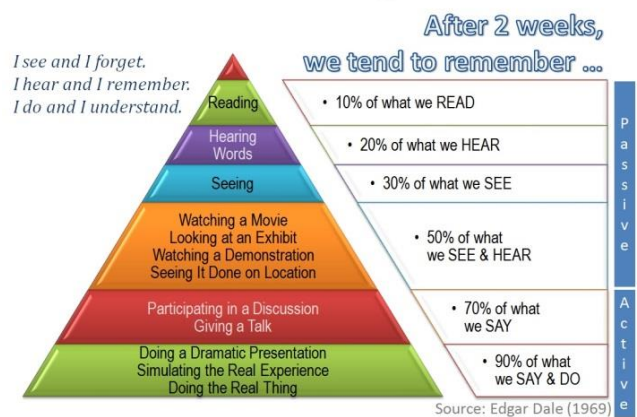
Accelerated Adult Learning Strategies

Authentic learning involves observation, interpretation, and application. The goal of *balanced instruction* is to address the learning strengths of adult learners, including verbal, visual, musical, logical, kinesthetic, reflective, interpersonal, natural, and spiritual. *Student-centered instruction* is most effective when it impacts the mind, will, and emotions.

TEAM-based Active Learning Principles

Students are encouraged to study in teams to develop application skills, leadership/relational skills, and presentations. Students are not to give answers to co-learners, but help them learn how to find the answers. **TEAM = Together Everyone Accomplishes More.**

The Cone of Learning



P a s s i v e A c t i v e

Student Requirements

First, answer the **questions** in the **portfolio** before class. This will assist student-leaders in focusing on core information and developing the time-on-task study skills and writing skills essential to effective learning and long-term memory. Each student must do his or her own work.

Second, maintain the **journal** in the portfolio. (1) What is God teaching you in this session? (2) How are you going to apply these concepts to your life, family, and ministry? (3) How can your church apply these concepts to making disciples and developing leaders? This will assist student-leaders in developing reflection, application, and decision-making skills essential to spiritual growth.

Third, participate in the **discussion** of the questions and applications in the portfolio during class. Through discussion students learn from one another and sharpen one another as iron sharpens iron. This will assist student-leaders in developing the relational, speaking, and creative/critical thinking skills essential to effective teaching and servant-leadership.

Fourth, complete the **midterm exam**. This will assist student-leaders in developing long-term memory through multiple reviews of the core material.

Fifth, complete the **final exam** in the portfolio. This will assist student-leaders in developing long-term memory through multiple reviews of the core material and in focusing on transformational leadership and teaching skills. Week 14

Course Objective Is Life Change

Our mission is to bring glory to God by assisting local churches to equip believers to live and minister biblically based on the inerrant Word of God. This equipping includes Bible knowledge, Christian character, and ministry skills. The objective is to take student-leaders from where they are and move them to where they need to be. Students will learn how (1) to read with their brains; (2) to remember what they have read; (3) to sharpen their thoughts through journaling; (4) to speak effectively before others; (5) to work as learning teams of leaders; and (6) to biblically apply what they are learning to life, family, and ministry.

Accelerated Adult Learning Techniques

Adults learn in unique ways and so this course incorporates multiple learning styles. According to the **Cone of Learning**, writing, discussing, and applying concepts are the keys to accelerated adult learning. The portfolio is foundational to learning because students remember more of what they write, discuss, and apply. By applying these principles of champion learners, students will experience transformational growth. Welcome to the accelerated disciple-making process!

Session	Date	Professor Responsibilities	Student Responsibilities
1		<p>Getting Started Simple Multiplication</p> <p>Go over this syllabus and the portfolio. Preview the study guides for the exams. Discuss the appendix. Discuss portfolio questions and applications. Demonstrate how to get the most out of the textbooks. Group Activity: Work on problems in groups of 2 or 3. Review in class: Math.com * Math.About.com * Kahn Academy * TEDEd Mathematics</p> <p>Review in class: websites and YouTube videos by the authors of the textbooks on mathematics. It is imperative that professors help students improve their math skills and character through coaching, feedback, encouragement, examples, and rubrics.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Print 462 Mathematics portfolio and notes. <input type="checkbox"/> Pay the honorarium to the director. <input type="checkbox"/> Skim the textbooks and be prepared to discuss how these books are unique as learning tools. <input type="checkbox"/> Study chapters 1-2 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore the resources at Math.com * Math.About.com * Kahn Academy *TEDEd Mathematics <input type="checkbox"/> Type the answers to the portfolio questions and journal applications in preparation for the discussion and group activity. <input type="checkbox"/> Share what you are learning with your apprentice disciples. <input type="checkbox"/> Invite friends and apprentice disciples to see how the course works.
2		<p>Long Multiplication Division</p> <p>Welcome guests and encourage students to share what they have learned so far. Discuss portfolio questions and applications. Coach students in character development, persistence, and mathematical thinking skills. Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 3-4 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources at Math.com * Math.About.com * Kahn Academy *TEDEd Mathematics <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your apprentice disciples. <input type="checkbox"/> Invite friends and apprentice disciples to see how the course works.
3		<p>Fast Multiplication and Division Multiplying and Dividing with Decimals</p> <p>Discuss portfolio questions and applications. Coach students in character development, persistence, and mathematical thinking skills. Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 5-6 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
4		<p>Converting Fractions into Decimals Adding, Subtracting, Multiplying,</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 7-8 in <i>All the Math You'll Ever Need</i>.

Session	Date	Professor Responsibilities	Student Responsibilities
		<p>and Dividing Fractions</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
5		<p>Advanced Word Problems Percentages</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 9-10 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
6		<p>Negative numbers The Isolation of x</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p> <p>Review for the midterm exam.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 11-12 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
7		<p>Midterm Exam</p> <p>Give the midterm exam.</p> <p>Preview the second half of the course.</p> <p>Coach students on how to improve their term papers.</p> <p>Make corrections to the term paper in class.</p> <p>Discuss who would benefit from the EBI leadership training program.</p> <p>Order textbooks for next semester.</p> <p>Request next semester portfolios and notes by email.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Review the study guide in the notes to prepare for the midterm exam. Four hours of study are recommended. <input type="checkbox"/> Work on the term paper. <input type="checkbox"/> Make or update your list of next-generation leaders you can pray for, share with, encourage and disciple. <input type="checkbox"/> Pay for textbooks for the next courses. <input type="checkbox"/> Be involved in the small group and/or Sunday School ministry of your church.
8		<p>Exponents and Square Roots Rations and Proportions</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 13-14 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.

Session	Date	Professor Responsibilities	Student Responsibilities
		<p>mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	
9		<p>Finding the Areas of Rectangles and Triangles</p> <p>Finding the Circumferences and Areas of Circles</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 15-16 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
10		<p>Rate, Time, and Distance Problems</p> <p>Finding x: Advanced Problems</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 17-18 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
11		<p>Interest Rates</p> <p>Big Numbers</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 19-20 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
12		<p>A Taste of Statistics</p> <p>Personal Finances</p> <p>Discuss portfolio questions and applications.</p> <p>Coach students in character development, persistence, and mathematical thinking skills.</p> <p>Group Activity: Work on problems in groups of 2 or 3.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 21-22 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Explore online resources as needed. <input type="checkbox"/> Type the answers to the portfolio. <input type="checkbox"/> Review the study guide. <input type="checkbox"/> Share what you are learning with your family and apprentice disciples.
13		<p>Business Math</p> <p>Review</p> <p>Discuss portfolio questions and applications.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Study chapters 23-24 in <i>All the Math You'll Ever Need</i>. <input type="checkbox"/> Review the study guide for the final exam.

Session	Date	Professor Responsibilities	Student Responsibilities
		Coach students in character development, persistence, and mathematical thinking skills. Group Activity: Work on problems in groups of 2 or 3. Review for final exam.	
14		Final Exam and Course Evaluation Give final exam. Collect completed portfolio for review. Students will debrief by sharing how they are using and sharing what they have learned. Discuss how to recruit students who would benefit from the EBI leadership training program. Distribute the textbooks, syllabi, portfolios, notes, and promotional materials for the next course. Time of fellowship.	<input type="checkbox"/> Review the study guide for the final exam. <input type="checkbox"/> Learning is about teaching others. Pass on the baton of transformational discipleship by sharing what you are learning.

EBI holds to the *Baptist Faith and Message*. The inclusion of articles, books, or external links in this course does not imply that the opinions expressed represent the official position of EBI.

Webliography

1. [About Education Free Online Math Classes](#) *
2. [Basic-mathematics.com](#) *
3. [Kahn Academy](#) *
4. [Math.com](#) *
5. [Math.About.com](#) *
6. [TEDEd Mathematics](#) *

Course Bibliography

- Dr. Steve Slavin. *All the Math You'll Ever Need*. New York: John Wiley, 1999. [9780471317517](#)
- Dr. Stanley Kogelman and Barbara Heller. *The Only Math Book You'll Ever Need*. New York: William Morrow, 1995. [9780062725073](#)
- James Nickel. *Mathematics: Is God Silent?* Ross House Books, 2001. [9781879998223](#)
- Rick Barnard. *Seven Practice Tests for the Mathematical Section of the California Basic Educational Skills Test (CBEST)*. 9780963869036
- McGraw-Hill Education Mathematical Reasoning Workbook*. McGraw-Hill, 2014. [9780071831833](#)
- McGraw-Hill's Pre-GED: The Most Comprehensive Review of the Skills Necessary for GED Study*. McGraw-Hill, 2003. [9780071428149](#)
- James Nickel. *Mathematics: Is God Silent?* Ross House Books, 2001. [9781879998223](#)

Transfer of Credits to Southern California Seminary

Attendance Policy

Attending class on time is important to receive the most out of the course. Entering class late disrupts the learning process of all students. Students are permitted three absences for a 14-week semester course. For the semester (28 classroom hours plus 68 homework hours) courses, more than 10 minutes late is a *tardy*; more than 20 minutes late is an *absence*. Two tardies count as one absence. **College credit cannot be transferred to Southern California Seminary when a student misses four or more class sessions.** A grade of NC (No Credit) will be recorded when a student misses four sessions, does not complete coursework on time, or earns less than 700 points.

Class Time and Homework Policy

To transfer credits to Southern California Seminary, **each 2-unit course must include at least 28 hours of class time discussion and 68 hours of portfolio homework during the 14-week semester.** Courses with less than 28 hours of class time do not meet EBI requirements. Since “time plus focus equals learning,” increased classroom time and active learning result in increased learning—and learning is the key to leadership and service. Courses start the week of January, May, and September. For maximum learning, **it is recommended that working students take 2 courses per semester** or 6 courses per year.

Late Work Policy

Completing work on time is an important habit for leaders to develop. Homework should be completed weekly before the class discussion and application. The grade for work that is between 1 and 7 days late is lowered by 20%. The grade for work that is between 8 and 14 days late is lowered by 40%. **Work that is over 14 days late will not be accepted.** Professors are to send to the EBI offices the grade sheet within 15 days of the end of each course so that transcripts can be updated each semester.

Portfolio Policy

To transfer credits from Equip Biblical Institute to Southern California Seminary, **students must present a complete portfolio of their course work.** The portfolio consists of the questions, journal applications and reflections, term papers, and exams for each course. Upon successful completion of the Associate of Biblical Studies, students may transfer **60-66 units** into the Bachelor of Arts in Biblical Studies degree. If the portfolio for a course is not complete, the credits may not be transferable. Portfolios must be completed individually—not as couples. Answers to portfolio questions are subjective so each student must do his or her own work.

Grade Scale

Grade	Percent	Points
A	= 95-100%	950-1,000
A-	= 90-94%	900-949
B+	= 87-89%	870-899
B	= 84-86%	840-869
B-	= 80-83%	800-839
C+	= 77-79%	770-799
C	= 74-76%	740-769
C-	= 70-73%	700-739
NC	= Below 70%	0-699



Student Evaluation

	Percent	Points
Portfolio/Group Activities	60%	600
Midterm Exam.....	20%	200
Final Exam.....	20%	200
Total.....	100%	1,000

Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Midterm 7	Session 8	Session 9	Session 10	Session 11	Session 12	Session 13	Final Exam 14	Points	Grade
50	50	50	50	50	50	200	50	50	50	50	50	50	200	1,000	ABC

Course Grading Rubric		
Grade	Requirements	✓
A	Exams, portfolio, and exercises with zero errors.	
A-	Exams, portfolio, and exercises with only 1 or 2 errors each session.	
B+	Exams, portfolio, and exercises with only 3 or 4 errors each session.	
B	Exams, portfolio, and exercises with only 5 or 6 errors each session.	
B-	Exams, portfolio, and exercises with only 7 or 8 errors each session.	
C+	Exams, portfolio, and exercises with only 9 or 10 errors each session.	
C	Exams, portfolio, and exercises with only 11 or 12 errors each session.	
C-	Exams, portfolio, and exercises need additional tutoring or peer coaching.	
NC	Students earn less than 700 points or miss more than 3 sessions.	
<p>The mission of Equip Biblical Institute is to bring glory to God by assisting local churches to equip believers of various cultures and languages to live and minister biblically based on the inerrant Word of God. This equipping includes building biblical knowledge, Christian character, and ministry skills. The goal is to provide preaching and teaching resources, intentional leadership development, disciple-making materials, Skype courses, YouTube videos, charts, notes, and visuals to pastors and churches around the world. EBI is equipping the next generation of pastors and leaders to multiply their influence by training leaders, creating videos, and writing books.</p>		