

## Course Syllabus

### Description:

Description text. Students who love playing interactive games will love this course. Students experience intrigue and fun when they log in to Pre-Algebra. This hands-on course is full of animations, applications, videos, games, and real-world scenarios. The satisfaction students gain from truly understanding higher level concepts such as systems of equations and central tendencies encourages excitement and joy for learning they may have never experienced before.

**Estimated Completion Time:** 2 segments / 32-36 weeks

### Major Topics and Concepts:

#### Segment I:

##### Module 00 Getting Started

- 00.01 Things to Know
- 00.02 Navigation
- 00.03 Lessons and Assessments
- 00.04 Course Specifics
- 00.05 Online Learning 101
- 00.06 Pace

##### Module 01 Real Numbers and Exponents

- 01.00 Module One Checklist and Pretest
- 01.01 The Number Line
- 01.02 Exponent Rules Part I
- 01.03 Exponent Rules Part II
- 01.04 Mid-Module Check
- 01.05 Square and Cube Roots
- 01.06 Scientific Notation
- 01.07 Operations with Scientific Notation
- 01.08 Module One Practice Test
- 01.09 Discussion-Based Assessment
- 01.10 Module One Test

##### Module 02 Geometric Transformations

- 02.00 Module Two Checklist and Pretest
- 02.01 Translations
- 02.02 Reflections and Rotations
- 02.03 Congruent Figures
- 02.04 Mid-Module Check
- 02.05 Similar Figures
- 02.06 Transversals
- 02.07 Triangle Angles
- 02.08 Module Two Practice Test
- 02.09 Discussion-Based Assessment
- 02.10 Module Two Test

**Module 03 Geometric Relationships**

- 03.00 Module Three Checklist and Pretest
- 03.01 The Pythagorean Theorem
- 03.02 Pythagorean Theorem Applications
- 03.03 The Pythagorean Theorem on the Coordinate Plane
- 03.04 Mid-Module Check
- 03.05 Volume Part I
- 03.06 Volume Part II
- 03.07 Module Three Practice Test
- 03.08 Discussion-Based Assessment
- 03.09 Module Three Test

**Module 04 Functions**

- 04.00 Module Four Checklist and Pretest
- 04.01 Introduction to Functions
- 04.02 Comparing Functions
- 04.03 Mid-Module Check
- 04.04 The Linear Function
- 04.05 Graphs of Functions
- 04.06 Module Four Practice Test
- 04.07 Discussion-Based Assessment
- 04.08 Module Four Test
- 04.09 Segment One Practice Test
- 04.10 Segment One Exam

**Segment II:****Module 05 Linear Relationships**

- 05.00 Module Five Checklist and Pretest
- 05.01 Graphs of Proportional Relationships
- 05.02 Slope-Intercept Form
- 05.03 Constructing Linear Functions
- 05.04 Mid-Module Check
- 05.05 Interpreting Linear Models
- 05.06 Applications of Linear functions
- 05.07 Module Five Practice Test
- 05.08 Discussion-Based Assessment
- 05.09 Module Five Test

**Module 06 Patterns of Association**

- 06.00 Module Six checklist and Pretest
- 06.01 Scatter Plots
- 06.02 Line of Best Fit
- 06.03 Mid-Module Check
- 06.04 Interpreting Lines of Best Fit
- 06.05 Frequency Tables
- 06.06 Module Six Practice Test
- 06.07 Discussion-Based Assessment
- 06.08 Module Six Test

**Module 07 Linear Equations**

- 07.00 Module Seven Checklist and Pretest
- 07.01 Algebraic Properties and One-Step Equations
- 07.02 Two-Step Equations
- 07.03 Solving Linear Equations
- 07.04 Mid-Module Check
- 07.05 Equations with Variables on Both Sides
- 07.06 Equations with Rational Coefficients
- 07.07 Module Seven Practice Test
- 07.08 Discussion-Based Assessment
- 07.09 Moodle Seven Test

**Module 08 Linear Systems**

- 08.00 Module Eight Checklist and Pretest
- 08.01 Systems of Equations
- 08.02 Solve by Graphing
- 08.03 Solve by Substitution
- 08.04 Mid-Module Check
- 08.05 Solve by Elimination
- 08.06 Applications of Systems
- 08.07 Module Eight Practice Test
- 08.08 Discussion-Based Assessment
- 08.09 Module Eight Test
- 08.10 Segment Two Practice Test
- 08.11 Segment Two Exam

**Course Assessment and Participation Requirements:**

To achieve success, students are expected to submit work in each course weekly. Students can learn at their own pace; however, “any pace” still means that students must make progress in the course every week. To measure learning, students complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and discussions. Students are expected to maintain regular contact with teachers; the minimum requirement is monthly. When teachers, students, and parents work together, students are successful.



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