Training Course	QU - Placer Math Test Preparation Course
Course Language	English
Course Duration	Total Number of hours 30
Course Objectives	<ul> <li>Provide the students with background on the subject matter required for the test.</li> <li>Provide the students with a structured review of the basic Math concepts.</li> <li>Develop effective test taking strategies such as eliminating wrong answer choices, using logic and clues in the question to deduce what the answer might be based on what already know, and managing time effectively.</li> <li>Train students to think critically and outside the box when solving test questions.</li> <li>Assist the students on how to use the permitted calculators (if any) in the right way to save time and prevent errors.</li> </ul>

Course Key Topic Area Includes:

Part I: Elementary Algebra:

General revision of exponents, roots, simplifying and factoring and operations on polynomials and rational expressions.

Solving different types of equations and inequalities. Working with the (x,y) Coordinate Plane, Distance and Midpoints, Slope, Parallel & Perpendicular Lines, and graphing lines and system of linear equations. Solving word problems and applications related to topics

Solving word problems and applications related to topics in part I.

Part II. Pre-Calculus;

Working with different types of basic functions and their properties,

Polynomial and rational functions and their properties. Exponential and Logarithmic functions and properties of logarithms.

Angles, Triangles, Solving triangles and Trigonometric ratios.

Trigonometric Identities, Trigonometric Graphs and Trigonometric equations.

### At the end of the program the trainees should be able to:

- Demonstrate an effective time management ability during the test.
- Identify the correct method to solve QU-Math Placer questions.
- Use the calculator correctly to solve the questions that allows use of calculators.

### **Course Content**

# Learning Outcomes

## Target Audience

- High school students Planning to apply to Qatar University.
- Foundation Program students who didn't set for QU-Math Placer yet.

# Course Material /Technology used/ Details Relevant to the course.

- Lecture notes (power-points/PDF)
- Worksheets
- Training on effective use of calculators
- Using Graphing software as an illustration tool whenever is needed