

# Knewton Math Readiness

Knewton Math Readiness is a web-based developmental math course that provides a continuously personalized learning path for each student. Powered by the award-winning Knewton Adaptive Learning Platform™, the course uses sophisticated algorithms to deliver the most helpful content to each learner at the right time. Customizable and scalable, Knewton Math Readiness provides schools with an easy-to-implement option for educating students on a basic set of math skills quickly and effectively.

The course contains high quality instructional videos, practice problems and assessments that adhere to the Common Core State Standards. Knewton Math Readiness is compatible with a wide range of devices, including Apple iPhone and iPad as well as other tablets and smartphones.

## THE NEED

56% of current high school graduates lack the core math skills necessary for post-secondary studies. Of those students who enter a developmental remediation program, 30% fail to complete their curriculum—and never graduate. Knewton Math Readiness was created in response to this nationwide need for an effective system to prepare students for college-level math.

**“The portion of students withdrawing from the courses fell from 13% to 6%, and pass rates rose from 66% to 75%. ”**

## EFFICACY

Early studies show that Knewton Math Readiness significantly improves student retention and skill proficiency. Of the 5,000 freshmen at Arizona State University who enrolled in Knewton Math Readiness in August 2011, 50% finished four weeks early. The portion of students withdrawing from the courses fell from 13% to 6%, and pass rates rose from 66% to 75%.

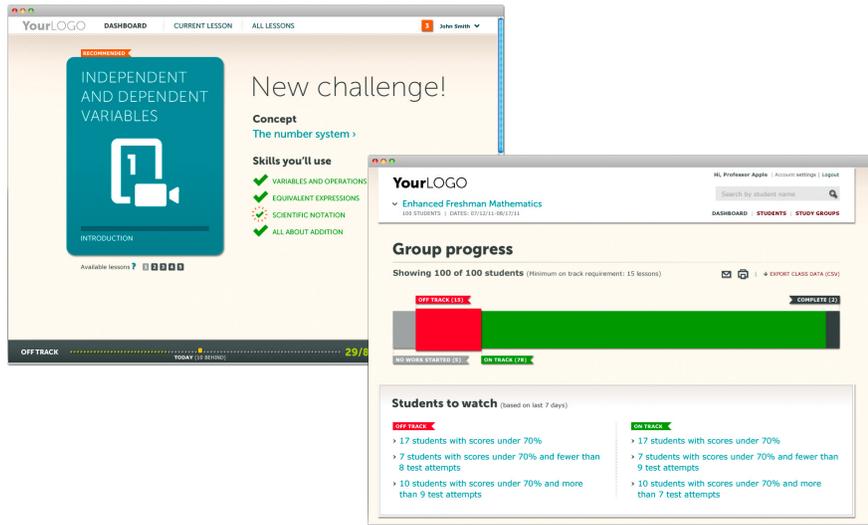
## COURSE CONTENT

- Knewton Math Readiness covers 7 core subjects: Ratios & Proportions, The Number System, Expressions and Equations, Geometry, Statistics and Probability, Functions, and Algebra.
- Within those subjects, thousands of dynamic lessons, assessments, and in-depth explanations provide a full suite of engaging learning content.
- All content was developed in collaboration with our partner faculty at ASU and other major institutions and is tightly aligned with the Common Core State Standards.
- Video lessons and explanations are delivered by engaging teachers who connect with even the most challenged or unmotivated students.
- The course is designed to deliver small, consumable bursts of content (often video-based), in a “learn this, now you try” workflow. Each activity takes no longer than 10-15 minutes.
- The material contains real world examples that make the experience relevant and meaningful for students.

## COURSE STRUCTURE

- Each subject is divided into a handful of levels, each of which contains a short diagnostic quiz (made up of 8-16 questions), allowing students to either prove mastery and pass out of the lessons within that level, or move straight into personalized instruction tailored to their specific needs.
- Each lesson begins with an introduction video that provides context, and continues with a warm-up quiz (3-5 questions) that covers the building blocks of the lesson.
- Lessons are broken down into 2-5 workshops, each containing a roughly 5-minute video teaching session and a corresponding practice quiz that tests retention. Students receive text and video explanations and are prompted with reflective questions.
- Each lesson builds toward a 10-question final test-out, where students can prove mastery and move on.





## STUDENT EXPERIENCE

- The course starts with a brief onboarding process that draws the student in while training the student on the system.
- Knewton Math Readiness uses principles of game mechanics to keep students in a productive state of flow. Short challenges, appropriately matched to the individual's skill level at any moment in time, allow the student to earn quick wins. Students excel through the course based on continuous effort; a framework of points and merit badges incentivize students to navigate both broadly and deeply within the course.
- Knewton helps students stay motivated by reinforcing their accomplishments, and providing contextual, constructive feedback when students need help.
- Diagnostic assessments are segmented in digestible chunks and carefully woven into the experience.
- User experience is supported across major browsers (Chrome, Firefox, Safari, IE) and works with iPad and other tablets.

## INSTRUCTOR TOOLS

- A comprehensive reporting dashboard gives administrators real-time access to aggregate and individual student metrics and overall course progress.
- Student mastery reports help instructors pinpoint areas for individual coaching, or adapt their instruction for the wider group, optimizing class time.
- Instructors are alerted as to which students are on track to complete the class and which are struggling.
- Study groups feature provide tutors and instructors with real-time, automatic segments of students who are struggling with similar concepts to facilitate small group instruction and peer-to-peer learning.