

## Background

ACT CollegeReady seeks to change the way institutions support student readiness in math and English. Historically, colleges and universities have dealt with the problem of student underpreparedness by implementing a two-part process: 1) administer a placement exam, which sorts students into “ready” and “not ready” categories on the basis of the exam results (a cut score); and 2) require students who are “not ready” to take non-credit-bearing (i.e., developmental) courses to fill gaps in the knowledge and competencies needed for postsecondary success.

An accumulating body of evidence (<https://ccrc.tc.columbia.edu/publications/predicting-success-placement-tests-transcripts.html>) has demonstrated this historical approach does not accomplish the desired outcomes. There are many different facets of this approach which are problematic, but one of the biggest issues is the focus on *measurement* of readiness rather than the *improvement* of readiness through personalized learning. In fact, research shows that many students are not benefiting from formal remediation. Therefore, a logical extension is to help more students avoid remedial coursework through self-paced learning; this is the intended purpose of ACT CollegeReady.

ACT CollegeReady was designed and built explicitly to address shortfalls of the current remedial education system and instead focus squarely on *ensuring student success*. ACT CollegeReady directly targets identified *competency gaps* and provides students with the necessary learning materials required to fill those gaps and to get students prepared for their chosen courses of study.

## Methodology

ACT CollegeReady is a college-readiness solution for math and English Language Arts skills. Unlike traditional placement tests, ACT CollegeReady is intended to provide students with personalized learning paths to achieving the level of readiness they need to begin college-level studies. CollegeReady does not include a high-stakes assessment that would permit development of

national norms. Instead, the default milestones set in the platform are determined using a competency-based approach described below. These default milestones can be adjusted at the institution level once specific outcomes data are available.

ACT CollegeReady supports a comprehensive scope of critical expectations for college readiness for both math and English Language Arts. This scope includes 19 units of math covering 129 topics and 386 learning objectives and 10 units of English covering 30 topics and 134 learning objectives. This scope was developed in cooperation with over 150 colleges and universities in an effort to determine the optimal readiness standards based on current ACT data and a national analysis of benchmarks for readiness for different courses of study. This work included in-depth research analyzing numerous state and national scopes (including Common Core and multiple state frameworks), existing text publishers, and other existing products and approaches. This research was followed by focus groups with college educators and researchers from across the country and an advisory panel of experts in both math and English. These participants include leaders of national education organizations such as: the League for Innovation in the Community College; the Council of Chief State School Officers; the International Association for K-12 Online Learning; administrators with community colleges and K-12 schools; and researchers at leading institutions. With the scope of critical expectations established, ACT CollegeReady organizes these expectations to determine optimal competency levels for both math and English.

*Math Milestones*—For math, there are three default milestones set using this competency-based approach:

60: Reaching this milestone in math demonstrates competency with arithmetic and some beginning algebra as shown through mastery of approximately nine units including 183 learning objectives. These nine units include Whole Numbers, Fractions and Mixed Numbers, Decimals, Ratios, Rates, and Proportions, Percents, Measurement, Geometry, Concepts in Statistics, and Real Numbers. By reaching this milestone,

the student should be adequately (if minimally) prepared for introductory math courses for non-STEM majors.<sup>1</sup>

80: Reaching this milestone in math demonstrates competency with arithmetic and beginning algebra as shown through mastery of approximately 14 units including 318 learning objectives. In addition to the nine units above, this milestone represents mastery of Solving Equations and Inequalities, Exponents and Polynomials, Factoring, Graphing, and Systems of Equations and Inequalities. By reaching this milestone, the student should be *well prepared* for introductory math courses.<sup>1</sup>

100: Reaching this milestone in math demonstrates competency with all 19 units including 386 learning objectives. In addition to the 14 units above, this milestone represents mastery of Rational Expressions, Radical Expressions and Quadratic Equations, Functions, Exponential and Logarithmic Functions, and Trigonometry. By reaching this milestone, the student should be *well prepared* for any introductory math course including those required for STEM majors.<sup>2</sup>

*English Milestones*—For English, there are two milestones set using this competency-based approach:

75: Reaching this milestone in English demonstrates competency with basic analytical reading and academic writing skills, representing mastery of approximately six units including 80 learning objectives. These six units include Introduction to College Reading and Writing, Identifying Main Ideas, Discovering Implied Meaning, Interpreting Bias, Analysis through Definition, and Learning Across Disciplines. By reaching this milestone, the student should be

prepared for introductory English courses.<sup>3</sup>

100: Reaching this milestone in English demonstrates competency with substantial analytical reading and academic writing skills as shown through mastery of all 10 units including 134 learning objectives. In addition to the six units above, this milestone represents mastery of Exploring Comparative Elements, Informed Opinions through Causal Chains, Applied Critical Analysis, and Using Sources in Critical Reading and Writing. By reaching this milestone, the student should be *well prepared* for any introductory English course.

## Adjusting Milestones

These default milestones should suffice to improve student outcomes for most institutions; however, institutions have the option to adjust milestones, especially after ACT CollegeReady has been in use long enough at a given institution so that outcomes data can guide any adjustments that are made. ACT offers the Course Placement Service in an effort to assist with this process, providing a proven framework to help institutions in making data-driven decisions regarding the proper milestone scores. More information is available here: <http://www.act.org/content/act/en/products-and-services/act-enrollment-management-services/act-course-placement-service.html>

## In Conclusion

The milestones represented in ACT CollegeReady provide a framework for measuring readiness using a competency-based approach that has been proven to work in a variety of use cases including adult-learner readiness, co-curricular courses, readiness boot camps, summer bridge programs, dual admissions, and traditional placement.

---

<sup>1</sup> Though courses vary across institutions, introductory math courses for non-STEM majors might include those with titles such as Introductory Algebra, Foundations of Mathematics, Technical Math, Math for Business, College Algebra, and Math Applications for Living.

<sup>2</sup> Though courses vary across institutions, introductory math courses for STEM majors might include those with titles such as Precalculus, Calculus, and Finite Math.

<sup>3</sup> Though courses vary across institutions, introductory English courses might include those with titles such as English Composition, Reading and Written Composition, Fundamentals of English, Mass Communications, and Interpersonal Communication.