



UTAH SYSTEM OF
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Math Competency Initiative Annual Report Academic Year 2023-24

Brief History of the Utah System of Higher Education's Math Competency Initiative

In 2015, the Utah Legislature passed [SB 196, *The Math Competency Initiative*](#). This legislation provides ongoing funding to support the Utah System of Higher Education's efforts to increase the number of students who earn college Qualitative Literacy (QL) general education credits while in high school in order to improve college degree completion rates. Utah does not have a specific high school math requirement for the senior year, although students who are interested in college are encouraged to take a college-preparatory math class. Through the appropriated Math Competency Funds, USHE and the Legislature encourage students to use their senior year as an opportunity to meet their college quantitative literacy college graduation requirements early, while their math skills are still fresh, by participating in Advanced Placement, the International Baccalaureate Program, Concurrent Enrollment (CE) Math, or through hitting target scores on math placement exams while still in high school.

The bill provides USHE with ongoing funding to:

- work with faculty and curriculum committees to determine qualifying scores for tests and exams that will fulfill college QL requirements or place students into appropriate college-level courses;
- provide electronic tools and helplines to guide students through QL course options appropriate to their major and explore the transferability of their completed QL requirements; these tools include the Utah Transfer Guide and the Utah Programs and Majors Guide; and
- via the Concurrent Enrollment program to:
 - increase access to a range of Concurrent Enrollment QL courses;
 - establish a consistent Concurrent Enrollment course approval process;
 - establish a consistent process to qualify high school teachers to teach Concurrent Enrollment college QL courses; and
 - pay for the Concurrent Enrollment Common Participation Form.

Concurrent Enrollment Quantitative Literacy and Timely Completion of Degrees

Because Quantitative Literacy requirements are one of the primary academic challenges for students seeking degrees, USHE has made concerted efforts over the last several years to increase successful completion of QL credits, including through Concurrent Enrollment. Those efforts have involved three

major phases of Math Initiative funding in the form of pass-through grants to degree-granting institutions in partnership with Local Education Agencies. Those phases are:

- **Phase I: Expand Quantitative Literacy Options in Concurrent Enrollment (2015-2018)**: In the past, most students at USHE degree-granting institutions were required to complete MATH 1050, College Algebra, in order to fulfill their Quantitative Literacy (QL) requirements. College Algebra was intended to prepare students for calculus, yet not all majors require calculus, and many students struggled with the class. A lack of options for completing the QL requirement created a barrier to degree completion. The USHE Math Pathways Redesign provided students with QL options better suited to their majors: the degree-granting institutions worked with their academic departments, and USHE worked systemwide with the Faculty Major Committees to identify the most appropriate QL courses for particular majors and careers. As a result, the QL options have been expanded across the system to include not only College Algebra (MATH 1050) for STEM and other majors that will eventually need calculus but also Statistics (MATH or STATS 1040) for social sciences and other fields and Quantitative Reasoning (MATH 1030) for other careers. Math Initiative funds helped expand Math Pathways options to Concurrent Enrollment and added 115 additional sections of Concurrent Enrollment QL courses. It also provided support to help students select the QL option appropriate to their career interests. This pathway redesign has had a significant impact: in AY 2016, 93% of Concurrent Enrollment QL earned credits were in MATH 1050. For the last 4-5 years, the earned credit is roughly 55% in MATH 1050, 20% in MATH/STATS 1040, 20% in MATH 1030, and 5% in other courses that satisfy QL.
- **Phase II: Math Instructor Preparation (2019-2021)**: During Phase II, USHE institutions also worked with public school Local Education Agencies (LEA) to increase the number of high school teachers qualified to teach Concurrent Enrollment math courses. Efforts during this phase included supporting teachers' professional development through work toward a master's degree or Level IV mathematics instruction licensure, as well as ensuring expanded QL options at over 200 public, charter, and alternative high schools across the state that participate in the Concurrent Enrollment program.
- **Phase III: Increasing student participation and success in Concurrent Enrollment Math (2022-2025)**: Historically, students who took Concurrent Enrollment classes self-selected into the program, often at the encouragement of parents who had gone to college themselves. The focus for the third phase of Math Initiatives funding is to actively identify and recruit students who have not self-selected to enroll in Concurrent Enrollment math but are qualified to do so based on grades in secondary math courses. Participation gaps are evident in all USHE service regions. USHE degree-granting institutions and their LEA partners have devised strategies specific to local needs to identify non-self-selecting students, create communication tools and special events to communicate the benefits of Concurrent Enrollment and QL math options to students and their

parents, and provide support such as graphic calculators, instructional videos to aid with homework, or tutoring necessary for students to be academically successful in QL courses.

Outcomes of the Math Competency Initiatives

The outcomes of the Math Competency Initiative pass-through funding focused on QL completion via Concurrent Enrollment are shown in the table in Figure 1. This represents a 123% increase in the number of credits earned in 2024 compared to 2016. (Note: High school students may also complete QL requirements through Advanced Placement, ACT, or International Baccalaureate exams scores; those numbers are not reflected in the table below, but ensuring that their exam scores result in course equivalencies that provide them with appropriate QL credit has also been an outcome of the Math Initiatives work.)

Figure 1. Concurrent Enrollment Earned Credit Inception to FY 23-24

