

Strategic Initiatives Steering Committee * Project Proposal

Subcommittee: Academic Placement and Support

Name of the Project: Develop New Mathematics and Quantitative Reasoning Options

Description of Proposed Action:

1. Create and oversee a process for the development of curriculum that meets the letter and spirit of EO 1110; ensure curricular proposals are widely shared and feedback incorporated during the development and implementation phases
2. Support academic programs in evaluating whether the current Mathematics and Quantitative Reasoning pre-requisites and requirements for their majors and minors are relevant and effective in preparing students for subsequent learning in the minor/ major. Should this evaluation suggest new directions, assist programs in developing new courses.
3. Develop a process and measures for regularly reviewing new and existing curriculum leading to and through Mathematics/ Quantitative Reasoning requirements and for adapting curriculum and delivery of curriculum as such review suggests.

What population or populations does this project serve to impact in Spring 2018? Fall 2018 and/or beyond?

- Spring 2018: None
- Fall 2018: Incoming first-year students identified by the placement mechanisms developed by the CSU system as recommended for or requiring additional support in Mathematics/ Quantitative Reasoning
- Beyond: All students completing their Math/QR coursework at CSUCI; there could be implications for those completing this coursework elsewhere (transfers), as new curriculum at CSUCI would lead to new articulation agreements with other institutions.

What is the data or evidence that we will examine to gauge the effectiveness of the project?

Numbering corresponds to items in "Description of the project."

1. Curriculum in place for students to enroll and appropriate numbers and types of sections offered for students to complete a GE B4 Mathematics/ Quantitative Reasoning course during their first year of full-time enrollment. Instructors appropriately supported (including professional development for new instructors/ Graduate Teaching Associates).
2. Course pass and re-take rates in a) courses leading to Math/QR requirements for the majors and for GE (e.g., the first half of stretch courses), b) courses that meet the Math/QR requirements for majors and/ or to complete GE, c) courses that depend on student learning outcomes from Math/QR requirements. Also, faculty evaluations of student preparation for subsequent courses/ learning within the major/ minors; student time to completion of Math/QR requirements; student persistence throughout courses leading to completion of Math/QR requirements; student retention and graduation with Math/QR outcomes as possible factor; perceptions of students during and on completion of Math/QR requirements; perceptions of faculty in courses requiring learning outcomes from Math/QR courses

Note: All data collected should be disaggregated by factors including gender, ethnicity, measures of socioeconomic status, first-generation college student status, among possible others.

What is the implementation timeline? Include budget and/or allocation determination.

Begin immediately (jump in on ongoing activities); actions within item #1 should include assessment of existing resources for instructor/ Graduate Teaching Associate professional development and allocation of resources as assessment dictates.

1. Initiate S'18 and AY18-19; time needed for collection and interpretation of data and evidence (IRPE and program faculty); time for curriculum development when indicated
2. Initiate in F'18; plan for annual review. Time needed for determining measures and for collection and interpretation of data and evidence (IRPE and group providing reviews).

Who (person, unit, etc.) will be responsible for implementing, tracking, and evaluating this project?

1. The Curriculum Committee, in consultation with Mathematics faculty and a wide swath of university personnel, including representation from the Provost's Office
2. The Academic Planning Committee (APC), in collaboration with Deans and Program Chairs
3. The Academic Planning Committee (perhaps a subgroup, perhaps with additional non-APC members as could be determined by the APC)

What groups and/or individuals provided input during the development of this proposal?

Division of Student Affairs; Division of Business and Financial Affairs; University Advancement; Office of the President; Academic Senate; students (Student Government, in UNIV with Living Communities or linked courses, in UNIV courses in general); Administrative Efficiencies Committee; Student Academic; Success & Equity Initiatives; Writing & Multiliteracy Center; Enrollment Management (Academic Advising; Registrar's Office, Student Systems, Admissions); Developmental Math Coordinator; and those participating in the World Café. Upon conclusion of the presentations, attendees were encouraged to complete an online survey to gauge support, attain feedback and gather additional ideas and suggestion for improvement.

If successful, how could or should this project be scaled up?

Items #2 and #3 are essentially a follow-through and scale up of item #1. (These should all be considered as one "package" recommendation.)