

## Developing an Alternative Postsecondary Math Pathway in Oregon

**Background and overview of issue:** There is growing recognition both at the state and national levels that algebraic-based math may not be necessary for graduates in all disciplines. In addition, there is widespread acknowledgement that math often poses a barrier to student completion. The question of *what kind of math is necessary for students to succeed in life and in education after high school* is at the heart of current efforts nationwide to prepare students for participation in our fast-paced, data-rich society, and to achieve Oregon's specific goal of a highly educated citizenry, 80 % of whom have earned some sort of postsecondary credential.

In order to be responsive to this question and to align with the Higher Education Coordinating Commission (HECC) Common Course Numbering Equivalencies and Outcomes (House Bill 2979) Report of December 2013, which calls out the goal of accelerating student progress through attention to common learning outcomes and cross-sector collaboration, the Joint Boards Articulation Commission (JBAC) has partnered with multiple stakeholders engaged in the development of a non-calculus math pathway. The final desired outcome is the development, approval and acceptance of an alternative pathway into and beyond transferable general education mathematics courses for Oregon's postsecondary students.

Several factors must be considered as this work is undertaken. A few of these factors include:

- Newly developed “quantitative literacy” courses should have common outcomes in order to establish statewide policy around their use and applicability. They should also be commonly numbered.
- Course content, learning outcomes and prerequisite knowledge and skills must be identified for Math 98<sup>1</sup>, 105, 243 and 211
- Language used in courses and programs which specify math requirements of “95 or higher” will need to be revisited (this will also include the math prerequisite language at the state level).
- Faculty engagement through intentional convenings is instrumental to ensure alignment throughout the work. This requires resource allocation both at the state and institutional levels.
- There are multiple layers to these conversations; each layer must be considered carefully to minimize unintentional consequences.

**Progress to date in developing an alternative math pathway:** As part of the work related to Developmental Education Redesign, a workgroup has been established and work has begun to identify common course learning outcomes and prerequisite knowledge for Math 105. Building upon the momentum surrounding developmental education and the recommendations made in the 2013 Common Course Numbering, Equivalencies and Outcomes Report, JBAC put forth a proposal to the HECC which focuses on faculty convenings. The proposal was approved in June 2014 and as a result, the first convening is scheduled in February 2015 and will bring together faculty representatives from the disciplines of Chemistry, Biology, Physics, Psychology, Sociology, and Economics to focus on identifying the types of math needed by students in fields that rely on quantitative reasoning but that employ specific mathematical

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<sup>1</sup> While several colleges piloting this course are titling it MTH 98, there is not common agreement regarding the course number across all community colleges.

operations to varying extents. This convening is made possible through funding by the Core to College grant. The proposal also included a recommendation for HECC to fund a second convening in fall 2015, related to bring together faculty from business, other social sciences and humanities fields.

**Next Steps in developing an alternative math pathway:** There is still much work to be done to finalize the alternative math pathway. In order to meet the Student Success and Institutional Collaboration Subcommittee's request for acceleration of the development of the pathway, over the course of the next six to nine months the following tasks will need to be completed:

- Alignment of/agreement on Math 98 across all institutions
- Alignment of/agreement on Math 211 across all institutions
- Alignment of/agreement on Math 243 across all institutions
- Statewide Math Chairs Summit to:
  - All CC's and U's to determine applicability/relevance of 98 to 105 → statewide agreement?
  - All CC's and U's to determine applicability/relevance of 98 to 211 → statewide agreement?
  - All CC's and U's to determine applicability/relevance of 98 to 243 → statewide agreement?
  - Recommend next steps regarding institutional language of "Math 95 or higher" (e.g. science courses, CTE programs)

After the fall 2015 convening, JBAC intends to provide a recommendation to HECC on role of Intermediate Algebra as the foundational prerequisite for all transferable general education math courses. This will be contingent upon the successful completion of the above tasks.