Florida Mathematics Re-Design

Articulation Coordinating Committee, February 27, 2019

Carrie Henderson, Ph.D.
Executive Vice Chancellor, Florida College System

www.floridacollegesystem.com
Florida Student Success Center’s Role and Vision

• The role of the Florida Student Success Center is to support institutional initiatives that improve college completion rates and promote student success.

• The vision of the Florida Student Success Center is to serve as a resource of evidence-based, innovative practices and timely information for colleges.
Pillars of Statewide Student Success Centers

Centers support community colleges’ efforts to develop student-centered pathways and increase student completion rates.

- Provide Coherence
- Connect Policy and Practice
- Convene
- Promote Research and Knowledge Development
- Improve Data Capacity
Mathematics Workgroups
Why Focus on Mathematics?

• Nationally, hundreds of thousands of students fail higher education math courses each year.
• Math is the most significant academic barrier to postsecondary attainment—particularly for students of color.
• To ensure that all students achieve momentum to earn a college degree, we must work together to redesign pathways and courses, modernize content and instruction and eliminate barriers.
• To that end, Florida high school, college and university faculty are collaborating on a statewide initiative to close achievement gaps and improve student success in mathematics.
Mathematics Workgroups

<table>
<thead>
<tr>
<th>High School to Postsecondary Alignment</th>
<th>FCS Mathematics Sequences</th>
<th>FCS to University Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore how high school curriculum in mathematics aligns with postsecondary expectations</td>
<td>Examine multiple pathways for students to enter based on programs of study as well as the re-design of course structures to maximize support for students</td>
<td>Examine how FCS curriculum in mathematics aligns with university expectations, particularly for students in transfer programs</td>
</tr>
<tr>
<td>- Clarify college entrance-requirements alignment with high school assessments and courses</td>
<td>- Identify course and institutional structures that promote and deter success</td>
<td>- Clarify university mathematics requirements</td>
</tr>
<tr>
<td>- Examine longitudinal student data on mathematics sequencing and student success rates</td>
<td>- Encourage the modernization of mathematics content</td>
<td>- Examine the longitudinal student data on mathematics sequencing and student success rates</td>
</tr>
<tr>
<td>- Engage high school and college mathematics faculty in dialogue about postsecondary expectations</td>
<td>- Review data on student success across algebra and non-algebra pathways</td>
<td>- Engage FCS and SUS mathematics faculty in dialogue about postsecondary expectations</td>
</tr>
<tr>
<td>- Identify strategies that promote greater alignment</td>
<td>- Identify a sequence of courses in the context of a student’s intended transfer major/meta-major</td>
<td>- Identify strategies that promote greater alignment</td>
</tr>
</tbody>
</table>

[www.floridacollegesystem.com](http://www.floridacollegesystem.com)
## Milestones

<table>
<thead>
<tr>
<th>Defining the Challenges</th>
<th>Prioritizing the Challenges</th>
<th>Gathering Information</th>
<th>Linking Challenges &amp; Solutions</th>
<th>Prioritizing Solutions</th>
<th>Policy Recommendations &amp; Evidence-Based Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milestone 1</strong>&lt;br&gt;Complete</td>
<td><strong>Milestone 2</strong>&lt;br&gt;Complete</td>
<td><strong>Milestone 3</strong>&lt;br&gt;Complete</td>
<td><strong>Milestone 4</strong>&lt;br&gt;Complete</td>
<td><strong>Milestone 5</strong>&lt;br&gt;In progress</td>
<td><strong>Milestone 6</strong>&lt;br&gt;April 2019</td>
</tr>
<tr>
<td>Administer survey to on key challenges &amp; synthesize findings</td>
<td>Prioritize the challenges and assign members to huddles—smaller working groups</td>
<td>Identify factors contributing to challenges, evidence &amp; drivers or root causes</td>
<td>Brainstorm &amp; evaluate potential solutions to the challenges previously identified</td>
<td>Propose and prioritize formal recommendations</td>
<td>Identify policy recommendations and evidence-based practices</td>
</tr>
</tbody>
</table>
Defining the Challenges
High School & Postsecondary Alignment – Challenges

• Communication channels between K-12 and postsecondary
• Traditional assessments
• Differences between the K-12 and postsecondary environments
• Certification, training and employment of math teachers/counselors in secondary education
FCS Mathematics Sequences – Challenges

• Requirements at the state level are too broad
• Differentiation at local levels
  • Many developmental education courses offered
  • Statewide course numbering too vague
  • Differences in course prerequisites
• Placement of students into the correct courses
• Student program changes
College to University Alignment – Challenges

• Differences in course prerequisites and course content
• Differences in learning outcomes based on meta-majors/programs of study
• Inconsistent course offerings between institutions
• Varying course modalities and instructional methods
• Student program changes
Next Steps

• Prioritizing solutions and presenting recommendations at June institute
  • Policy Recommendations
  • Evidence-Based Practices

• Participation in Conference Board of the Mathematical Sciences in May - High School to College Mathematics Pathways State Task Force
  • Responding to the changing role of mathematics in the economy
  • Ensuring college readiness today and tomorrow
  • Articulating the mathematical pathways that will serve all students
THANK YOU!