Mathematics Kick-Off Meeting: Linking Challenges to Solutions

September 18, 2018

St. Petersburg College, Seminole Campus Conference Center

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FLORIDA DEPARTMENT OF EDUCATION fldoe.org

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Linking Challenges to Solutions

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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*.

What are Student Success Centers

- A statewide organization that supports community colleges' efforts to develop **student-centered pathways** and increase student **completion rates.**
- Help colleges **align priorities**, integrate **student success efforts**, **maximize resources** and present a **collective voice** of practitioners in policy discussions.
- Part of a national network and learning community promoting **best practices, peer collaboration and professional development.**

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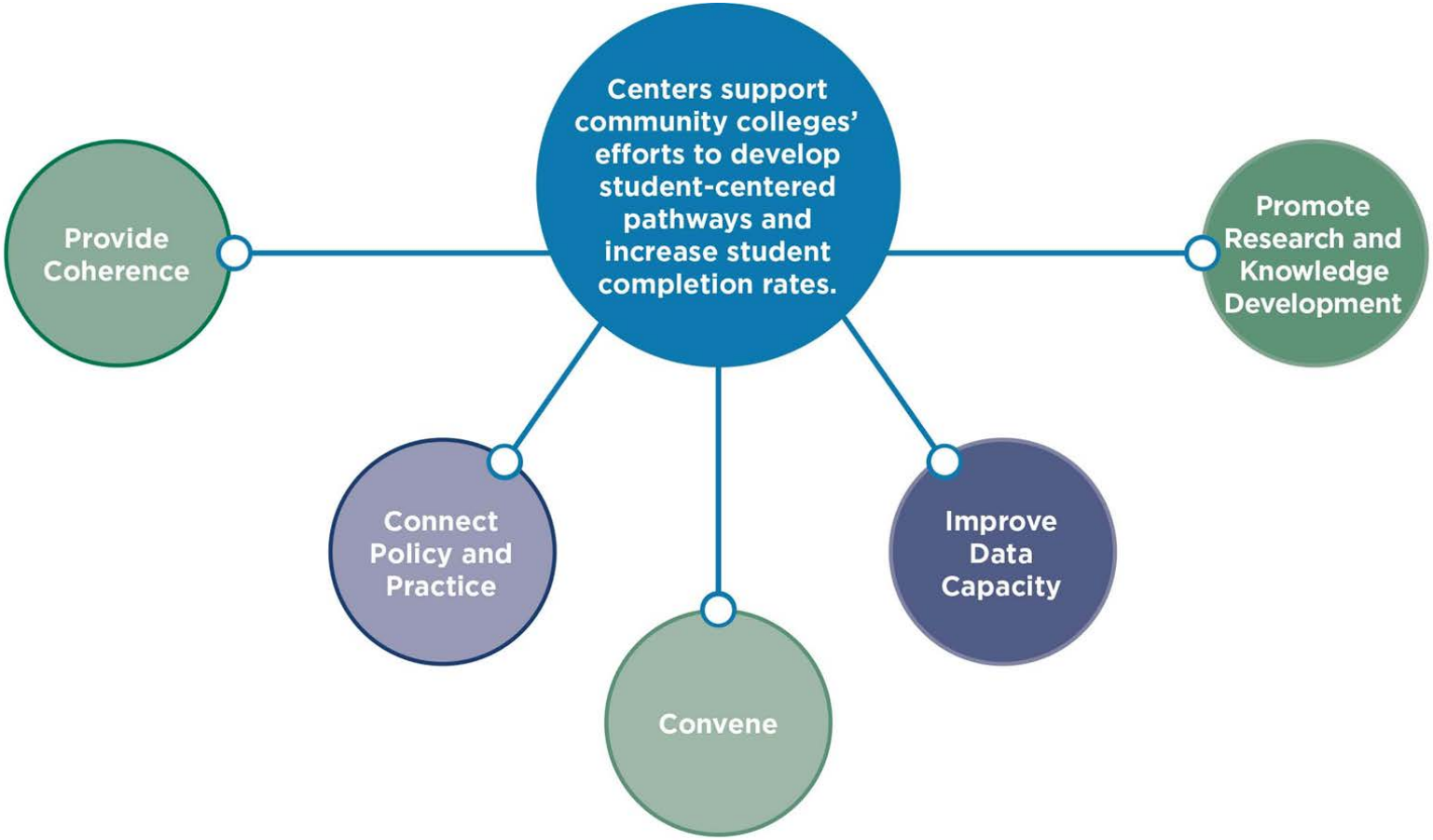
Pillars of Statewide Student Success Centers



Mathematics Workgroups

High School to Postsecondary Alignment

Explore how high school curriculum in mathematics aligns with postsecondary expectations

- Clarify college entrance-requirements alignment with high school assessments and courses
- Examine longitudinal student data on mathematics sequencing and student success rates
- Engage high school and college mathematics faculty in dialogue about postsecondary expectations
- Identify strategies that promote greater alignment

FCS Mathematics Sequences

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

- Identify course and institutional structures that promote and deter success
- Encourage the modernization of mathematics content
- Review data on student success across algebra and non-algebra pathways
- Identify a sequence of courses in the context of a student's intended transfer major/meta-major

FCS to University Alignment

Examine how FCS curriculum in mathematics aligns with university expectations, particularly for students in transfer programs

- Clarify university mathematics requirements
- Examine the longitudinal student data on mathematics sequencing and student success rates
- Engage FCS and SUS mathematics faculty in dialogue about postsecondary expectations
- Identify strategies that promote greater alignment

Charge, Values & Deliverables

Charge

Explore complex issues surrounding mathematics pathways to prepare: high school students for transition into postsecondary; Florida College System students for success in gateway courses aligned to their programs; and Florida College System students for transition into four-year universities.

Guiding Values

Transparency, collaboration, respect, diversity, evidence-based inquiry

Deliverables

1) Cataloging evidence-based practices designed for scale
2) Developing recommendations for state policy and institutional policy and practice around mathematics re-design

Workgroup Expectations

September 18, 2018	Attend an in-person one-day orientation and kick-off meeting
September 2018 – May 2019	Participate and engage in monthly virtual meetings
June 2019	Attend an in-person one-day institute in June 2019
Monthly Activities	Engage in readings, research and other related activities contributing to workgroup roles and responsibilities (Estimated 6-8 hours per month)

Members

- ~25 faculty and administrators per workgroup representing K-12, Florida College System and State University System
- ~40 members at-large who will engage through newsletters and webinars and submit feedback in the collection of evidence-based practices and policy recommendations


BEGIN WITH THE END IN MIND
Covey 1989

Deliverables

Recommendations	Evidence-Based Practices
Milestone 6 *April 2019*	
What is the strategy? Why does this recommendation need to be implemented? What resources are needed? Who needs to be involved?	What is the practice? Is this a best, promising or innovative practice? Where has this practice been implemented? What is the evidence of success? Can this practice be replicated in other settings?

Milestones

Defining the Challenges	Prioritizing the Challenges	Gathering Information	Linking Challenges & Solutions	Prioritizing Solutions
Milestone 1 *Complete*	**Milestone 2** *In Progress*	**Milestone 3** *Nov. 2018*	**Milestone 4** *Jan. 2019*	**Milestone 5** *Feb. 2019*
Administer survey to on key challenges & synthesize findings	Prioritize the challenges and assign members to huddles—smaller working groups	Identify factors contributing to challenges, evidence & drivers or root causes	Brainstorm & evaluate potential solutions to the challenges previously identified	Propose and prioritize formal recommen-dations

Milestones

- Milestone 1: Defining the Challenges (Pre-Work)
- Milestone 2: Prioritizing the Challenges
- Milestone 3: Gathering Information
- Milestone 4: Linking Challenges and Solutions
- Milestone 5: Prioritizing Solutions
- Milestone 6: Drafting Recommendations & Best Practices
- Milestone 7: Share Recommendations & Best Practices

Resources

- **Chairperson(s):** College faculty or administrator who will lead the workgroups
- **Staff Liaisons:** Staff members from the Florida College System, Florida Department of Education and Office of the Board of Governors for the State University System who will connect workgroups with technical assistance, document the work, etc.
- **Canvas:** Workgroup site with resources and modules around the work

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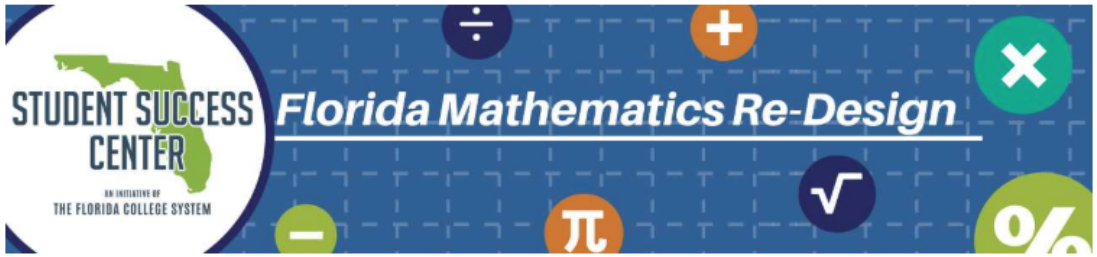
Florida Mathematics Re-Design Workgroups



Welcome to the Canvas site for the Florida Mathematics Re-Design Workgroups! The charge of the Florida Mathematics Re-Design workgroups is to explore complex issues surrounding mathematics pathways to prepare: high school students for transition into postsecondary; Florida College System students for success in gateway courses aligned to their programs; and Florida College System students for transition into four-year universities. We look forward to your engagement throughout the year.

Site Navigation

Navigation Title	Function
Announcements	Information posted by workgroup chairs and staff liaisons
Modules	**Overview and Resources** Charter, toolkit and other resources **Workgroup Modules (one per workgroup)** *Chair and Staff Liaison Contact Information:* names and email addresses of the workgroup chairs and staff liaisons *Information*: next steps for accomplishing the work

View Course Stream

Coming Up

View Calendar

Mathematics Re-Design Dinner
Sep 17 at 6pm

Mathematics Re-Design Kick-Off Meeting
Sep 18 at 8:30am

Announcements	Information posted by workgroup chairs and staff liaisons
Modules	**Overview and Resources** Charter, toolkit and other resources **Workgroup Modules (one per workgroup)** *Chair and Staff Liaison Contact Information:* names and email addresses of the workgroup chairs and staff liaisons *Information*: next steps for accomplishing the work *Discussions:* forum for engagement *Meeting information*: dates, minutes, recordings of webinars, any pre-work and follow-up details *Resources:* summary reviews of research and state policies as well as articles and data *Collaboration:* external URL to Google Drive folders to allow for collaboration
Discussions	Forums for chairs and participants to interact asynchronously
People	List of participants and contact information
Calendar	List of events and deadlines

Chair Contact Information

- High School to Postsecondary Alignment - Cynthia McGinnis, Northwest Florida State College
- FCS Mathematics Sequences - Julie Phelps, Valencia College
- College to University Alignment - Tommy Minton, Seminole State College of Florida

Workgroup Participants

Download the list of workgroup participants.

Technical Support

For all technical and login assistance, please contact the Florida Virtual Campus Help Center .

Florida Student Success Center

For questions regarding the mathematics workgroups, please contact FLStudentSuccess@fldoe.org.

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Overview and Resources

- Membership List of Mathematics Workgroups
- Mathematics Workgroup Charter
- Toolkit for Mathematics Workgroups
- All Workgroups Discussion
- Materials from Kick-Off Meeting (September 18, 2018)
- Policy and Research Resources

High School to Postsecondary Alignment Workgroup

- Chair and Staff Liaison Contact Information: High School to Postsecondary Alignment
- Information: High School to Postsecondary Alignment
- Discussion: High School to Postsecondary Alignment
- Meeting Information: High School to Postsecondary Alignment
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Toolkit for Mathematics Workgroups

The Toolkit for Mathematics Workgroups is a resource for workgroup chairs, workgroup members and staff liaisons to guide the re-design efforts from September 2018 through June 2019. Contents of this toolkit were adapted from the University of Texas at Austin, Dana Center Mathematics Pathways, State-Level Math Task Force Toolkit.

Milestones	Activity	Description	Files	Recommended Completion Date
Milestone 1	Defining the Challenges (Pre-Work)	Administer survey to solicit workgroup feedback on key challenges related to mathematics re-design	Milestone 1-Instructions-Defining the Challenges.docx	Prior to kickoff meeting
Milestone 2	Prioritizing the Challenges	Prioritize the challenges and assign members to huddles	Milestone 2-Instructions-Prioritizing Challenges.docx Milestone 2-Template-Huddle Assignments.docx	Kickoff meeting
Milestone 3	Gathering Information	Complete *Template for Gathering Information*	Milestone 3-Instructions-Gathering Information.docx Milestone 3-Template-Gathering Information.docx Milestone 3-Example-Gathering Information.docx	November 2018

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Policy and Research Resources

Mathematics Re-Design in American Higher Education: A Literature Review & Introduction to Florida Data: This document is developed as a resource for the mathematics workgroups to provide an introduction to mathematics re-design in American postsecondary education. It includes a high-level review of national mathematics re-design initiatives and select policy and research papers, with additional data and information from Florida. It is not an exhaustive summary of all the literature and research surrounding postsecondary mathematics.

Guide to Florida Policies Related to Secondary and Postsecondary Mathematics: This informational guide provides information relevant to secondary policies in Florida that can assist in guiding the work of the workgroups. The guide may not be exhaustive, but it includes a list of general secondary policy, curriculum, articulation and advising resources.

Mathematics State Policy Research – Secondary: This policy outline provides a synopsis of recent state policies related high school mathematics pathways, graduation requirements and science, technology, engineering and mathematics (STEM) education. The outline is not an exhaustive list, but includes policies relevant to the mathematics workgroups or are slightly differentiated from Florida's policies related to each of the listed areas.

Mathematics State Policy Research – Postsecondary: Legislation and state-level policy related to postsecondary mathematics focus on four primary areas: placement, developmental education, corequisite delivery and alignment of mathematics courses with programs of study. This document provides definitions of terms and an overview of mathematics legislation and policy. The referenced information may not represent an exhaustive list of all legislation and policies.

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Resources: High School to Postsecondary Alignment

High School to Postsecondary Course Crosswalks: The following documents indicate alignment of high school mathematics courses with postsecondary courses including MAC 1105 College Algebra, MAT 1033 Intermediate Algebra, MGF 1106 Liberal Arts I and STA 2023 Introductory Statistics. Currently, there is not an alignment with high school mathematics courses and MGF 1107 Liberal Arts II.

Math Pathways in the Florida College System (CPS) - A recent Center for Postsecondary Success report (February 2018) investigated mathematics pathways by examining Associate in Arts (AA) students' course taking behavior and success in Intermediate Algebra (MAT1033) and College Algebra (MAC1105), as well as their degree completion in the Florida College System. The report did not find evidence that taking MAT1033 as a prerequisite to MAC1105 increased the likelihood of passing the gateway course (MAC1105), and for some students taking MAT1033 as a prerequisite may actually decrease the likelihood of passing the gateway course. Further, the report found that enrolling in MAT1033 was associated with a lower likelihood of earning a degree within two years, a result of additional coursework beyond the minimum AA requirements.

Short-Term Success in Math Pathways in the Florida College System (CPS) - Center for Postsecondary Success follow-up document with additional information, based on the work for the Mathematics Pathways in the Florida College System report, listed above.

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