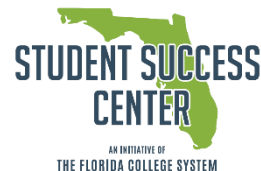




# Mathematics Spring Kick-Off Webinar

January 15, 2019



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

# Webinar Logistics

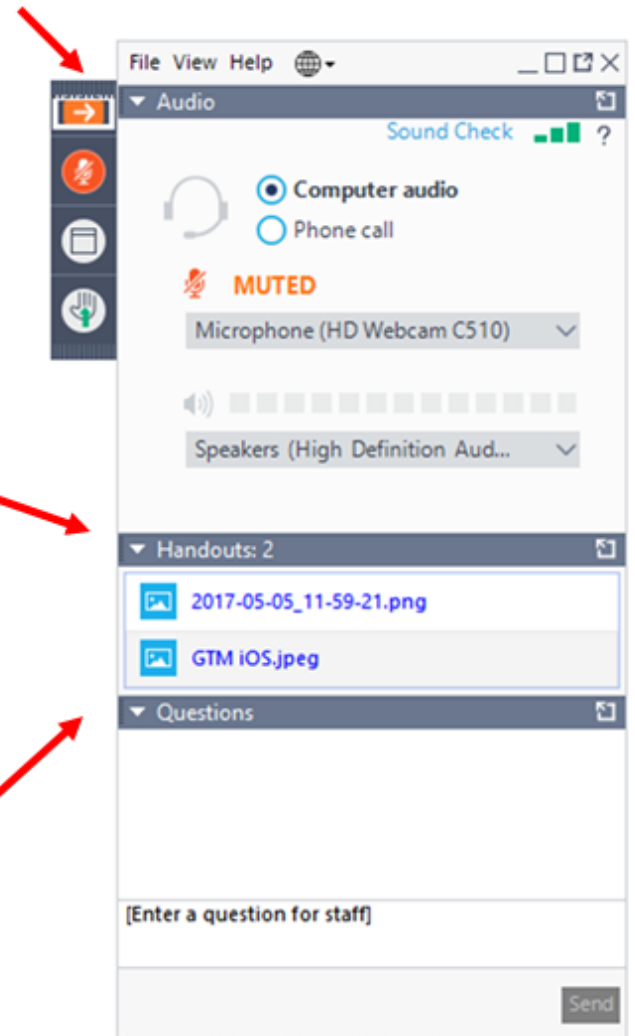
Participants will be on mute for the duration of the webinar.

Material from today's webinar:

In the handouts area you will find a copy of today's presentation.

How to submit questions:

To submit questions during the webinar, please utilize the Questions function. During the Q&A portion of the webinar, questions will be addressed.



# Agenda

Review of Milestone 3

Report out

- High school to postsecondary
- FCS mathematics sequences
- University alignment

Milestone 4

February 13-14 meeting at Polk State College

## Milestone 3 Review



**Naomi Sleap**

Executive Director

Florida Student Success Center

## Milestone 3: Gathering Information

- Purpose:** This template guides discussion among huddles to clearly define the challenges associated with addressing the problems previously identified by the workgroups with implementing mathematics pathways. The template helps ensure a thorough discussion and provides a way to organize information that will be gathered by the Huddle Leads and presented to the workgroups.

*Template for Gathering Information*

Huddle 1 Challenge:	Click here to enter text.		
Factor contributing to the challenge	Evidence that this factor contributes to the challenge	Drivers or root causes of the factor	Additional information needed
<b>Factor 1:</b> Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
<b>Factor 2:</b> Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
<b>Factor 3:</b> Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

*Add additional rows as needed.*

**Process check:** If the factors identified above were resolved, would the overall challenge be eliminated? Why or why not?

**Additional information:**

Click here to enter text.

## Milestone 3 Report Out



**Professor Cynthia McGinnis**  
Northwest Florida State College  
**Chair:** High School to  
Postsecondary Alignment



**Dr. Julie Phelps**  
Valencia College  
**Chair:** FCS Mathematics  
Sequences



**Dr. Tommy Minton**  
Seminole State College of  
Florida  
**Chair:** College to  
University  
Alignment

# 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

## Communication between K-12 and postsecondary

- Clearly defined definition of “Mathematics”
- How do we develop students abilities for thinking and reasoning mathematically?
- What are the essential knowledge skills needed in the areas of mathematical structure, instructional practices, curriculum and pathways?
- What essential concepts are necessary for developing an understanding at a deep level?
- What are the key concepts that all high school students need as a foundation, regardless of postsecondary education and career goals?
- How do we align assessment in high school with assessment in college?



## Traditional assessments

- How do we equitably determine what students know and can do?
  - . Vocabulary
  - . procedures
  - . mathematical thinking
  - . logical reasoning
  - . concepts
  - . problems the student can formulate and solve
- How do we ensure that our assessments enhance mathematics learning and support good instructional practice?
- How do teachers negotiate the different purposes of classroom and large-scale assessment?
- In what ways are classroom practices influenced by the demands of large-scale assessment?

# Differences between the K-12 and postsecondary environments

- Pedagogical differences
- Expectations on standards
- Depth and Breadth
- Assessment
- Calculator use on tests

Sybilla Beckman a Josiah Meigs Distinguished Teaching Professor of Mathematics at the University of Georgia, AMS Notices, called for the creation of a more unified mathematics teaching community, stating that “mathematicians, mathematics educators, and teachers bear collective as well as individual responsibility for improvement of the mathematics education system as a whole”

# Certification, training and employment of math teachers/counselors in secondary education

- Are breadth and depth of mathematical concepts in teacher preparation adequate?
- Are the mathematics requirement for some institutions more robust than in others?
- How do we support teachers in the class room?
- Is there sufficient funding for mathematics training for all grade levels?
- Are there training opportunities for K-12 and college faculty?
- Are parents, councillors, and students working together to develop a plan for success, be it work, trade school, community college or university?

## FCS Mathematics Sequences – Challenges

- Requirements at the state level are too broad
- Differentiation at local levels
  - Many dev ed courses offered
  - Statewide course numbering too vague
  - Differences in course prerequisites
- Placement of students into the correct courses
- Advising of Math Pathways
  - Inconsistent course offerings between institutions
  - Students changing programs

# College to University Alignment – Challenges

- Differences in learning outcomes based on meta-majors/programs of study
  - Changes to objectives in current courses (i.e., MAC 1105)
  - Creation of new courses specific to majors/meta-majors
- Differences in course content
  - Objectives and student learning outcomes
  - Varying course modalities and instructional methods
- Advising of Math Pathways
  - Inconsistent course offerings between institutions
  - Students changing programs
- Differences in course prerequisites
  - Within mathematics sequences and pathways
  - In other program areas such as science and business courses

## Next Steps for Milestone 3

- Review liaison feedback: (also posted in Canvas)
  - High School to Postsecondary <https://bit.ly/2TJey7r>
  - FCS Math Sequences <https://bit.ly/2slbp27>
  - College to University <https://bit.ly/2AG3UHm>
- Discuss with Huddle Leads
- Finalize Milestone 3 Templates by the end of January

## Milestone 4

**Dr. Carrie Henderson**  
Executive Vice Chancellor  
Florida College System



## Milestone 4: Linking Challenges and Solutions

- Purpose: This template supports discussion among huddle and workgroup members to brainstorm and evaluate potential solutions to the challenges previously identified in the Template for Gathering Information.
- Suggested Completion Date: February 2019



# Brainstorming Solutions - Template

## *Template for Brainstorming Solutions*

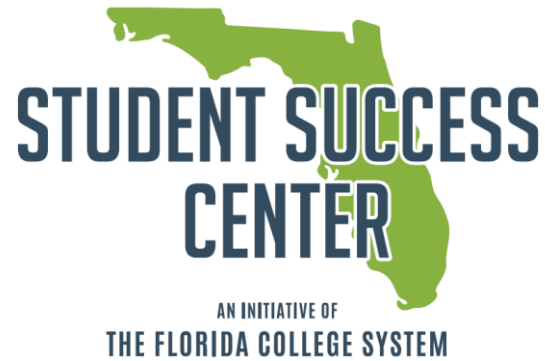
Factors that contribute to the overall challenge were identified in the *Template for Gathering Information*. Consider how the solutions address the factor contributing to the challenge.

Huddle 1 Challenge:	Click here to enter text.		
Factor contributing to the challenge	Promising solutions (strategies to address this factor)	Advantages/disadvantages of solutions	Examples where solutions have been implemented (if any)
<b>Factor 1:</b> Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
<b>Factor 2:</b> Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
<b>Factor 3:</b> Click here to enter text.	Click here to enter text.	Click here to enter text.	

**Process check:** Has at least one solution been identified for each factor listed?

**Additional information:**

Click here to enter text.



# February Mathematics Convening

## February 13-14 Meeting at Polk State College

### Meeting Goals:

- Report out on the challenges associated with addressing the problems previously identified by the workgroups with implementing mathematics pathways. (Finalized Milestone 3)
- Provide breakout workgroup time to discuss and prioritize linking challenges to solutions as areas of focus for the workgroups. (Milestone 4)
- Provide breakout workgroup time to develop potential solutions to the challenges and prioritize the solutions that will move forward as formal recommendations. (Milestone 5)

# February 13-14 Meeting at Polk State College

## Registration Website:

- <https://bit.ly/2QDZLJp>

## Welcome Dinner:

- February 13, 6:30-8:30 p.m. at Harry's Seafood Bar & Grille

## Workgroup Meeting:

- February 14, 8:30 a.m. - 3:00 p.m., Polk State College Lakeland Campus, Technology Building

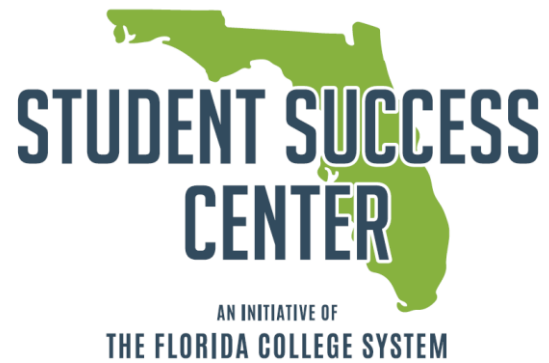
## February 13-14 Meeting at Polk State College

### Lodging:

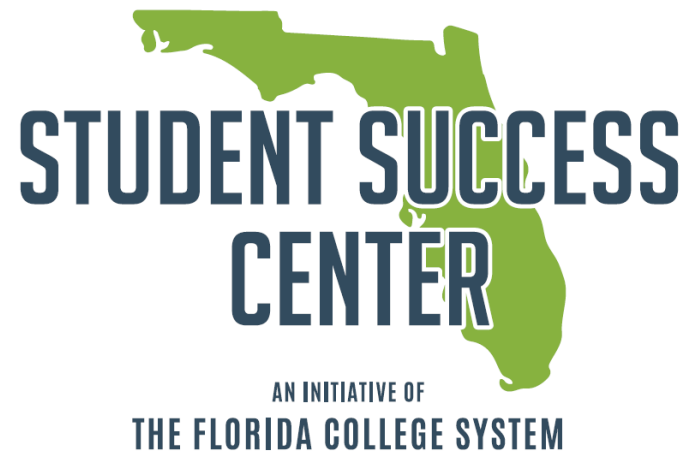
- Cost of the hotel room will be covered upon checkout, though you will need a purchasing or credit card to book the hotel and to cover any incidentals.

### Travel Support:

- Following the meeting, each institution will receive a check in the amount of \$100 per participant who attended the meeting to offset additional travel expenses.



## Q & A



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

**THANK YOU!**

