Statistics Pathway

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The Four Math Pathways (today)

**Science, Technology, Mathematics majors**
- Pre-calculus or Trigonometry
- Calculus

**Engineering majors and all Georgia Tech students**
- Calculus
- More Calculus

**Majors that require calculus at some point in the sequence**
- College Algebra
- Pre-calculus » Calculus

**Everyone Else**
- Math Modeling or Quantitative Reasoning
- Statistics
New Math Pathways

**STEM**

- Science, Technology, Mathematics majors
  - Pre-calculus or Trigonometry
  - Calculus

- Engineering majors and all Georgia Tech students
  - Calculus
  - More Calculus

**Non-STEM**

- Majors that require calculus at some point in the sequence
  - College Algebra
  - Pre-calculus » Calculus

- Most Social Sciences, Health Science, Business, Education
  - Elementary Statistics
  - Applied Statistics/Research Methods

- Everyone Else
  - Math Modeling or Quantitative Reasoning
  - Statistics*
USG Math Pathways

Gateway Math Course: 2013
- MATH 1111, 75.7%
- MATH 1001, 7.6%
- MATH 1101, 16.7%

Graduates by Area 2013
- STEM, 27%
- Non-STEM, 73%

Gateway Math Course: 2017
- MATH 1111, 67.8%
- MATH 1001, 16.0%
- MATH 1101, 16.1%

Graduates by Area 2017
- STEM, 31%
- Non-STEM, 69%
Expectations: Courses and Pathways

• Establish a clear Statistics Pathway
• Offer Elementary Statistics (MATH/STAT 1401) without a prerequisite
• Include Elementary Statistics in Area A2 (as well as Area D)
• Identify programs for which the statistics pathway may be appropriate
• Develop advising protocols for students in identified programs.
Expectations: Pathways

• Regents Advisory Committees have been asked to identify the appropriate math for disciplines in their areas.

• Prototype institutions must implement a strategy to address any issues with students satisfying Area D that are created by these pathways. Examples might be:
  – Advanced or specialized statistics
  – Research methods
  – Data Science/Analytics
Expectations: Learning Support

• For institutions that admit students requiring Learning Support, develop and offer a Corequisite Learning Support course for statistics no later than Fall 2020.
• Institutions will be asked to work with the University of Texas’ Dana Center on the development of this Learning Support course.
• Work on the LS course will begin in Fall 2019
• Anticipate some pilots of LS Stats in Spring 2020
Identify your institutional coordinator for this project

Identify programs for statistics pathways

- Mathematics departments should engage departments that offer degrees in the social sciences, behavioral sciences, health professions and business to ensure that the statistics pathways appropriately address the mathematical need in these fields.
Timeline

Late August 2019
Statistics Learning Support Overview Webinar with Dana Center

Fall 2019
Institutions may enroll students not requiring learning support in pilot sections

Sept-Oct 2019
Collect information on statistics courses and corequisite models
Timeline

Fall 2019
Initiate Institutional Curricular Review for Statistics Pathway; Notify Gen Ed Council of changes

October 11, 2019
Statistics Learning Support Overview Webinar with Dana Center

Oct-Dec 2019
Institutions develop Corequisite Statistics Courses
Timeline

November 12, 2019
Statistics pathways programs submitted to System Office and shared with other institutions

December 2019
Institutional Check-ins

Spring 2020
Institutions can pilot Corequisite Statistics Courses; Non-LS students can be in Statistics in Area A2
Timeline

June 2020  Review of Corequisite Statistics

Fall 2020  Full implementation of prototype (corequisite support, pathways, advising)

Spring 2021  Systemwide review of statistics prototype
Next Steps

• Conversations about current elementary statistics course with business, education, health professions, and social sciences faculty
• Pathway identification
• Program map adjustments
• Campus Curricular Review
• Area D planning
• Advising curriculum updates
Questions?