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Embedded Mini Boot Camps; A Path to Success

Concept: Create embedded, asynchronous mini boot camps for students taking MAT 131 (Calculus) to set them up for academic success. This one-week program of added rigorous instruction customized to each student's deficiencies would be offered three times throughout the semester for those showing weakness in class after key exams.

Goal: To bring meaningful support to the math-challenged students within a semester, so that they can achieve mastery of skills and knowledge to pass the course. The target course is MAT 131. This is foundational and predictive course for later STEM success, the embedded mini boot camps are designed so that high success rate (target: 80+%) can be achieved.

Problem to be Addressed:

• The DFW rate for MAT 131 (data for PNY from Fall 2015-Fall 2019, pre-pandemic) was upwards of 50%.

• The challenges of COVID-19 have also taken a toll in K-12 education, Mathematics education has taken a particular hit [NY Times], [WSJ]. We expect to see an increased number of math challenged students this year and moving forward. We want to get ahead of the curve and put mechanisms in place such as the embedded mini boot camps proposed here to cope with the crisis that is practically at our doorsteps.