Historically calculus classes seem to be viewed as one of the most challenging classes in STEM disciples. There are many reasons behind this statement; lack of prerequisite knowledge, difficulty of content, poor learning styles, lack of accountability, and absence of support. Like many other universities, our institution is negatively affected by the high DFW rates in calculus classes. As an effort to remediate this problem, we have introduced a series of new testing modules and interventions which are intended to increase student learning while improving retention. Early on we test students’ knowledge of prerequisite material and give multiple assignments to strengthen their understanding of basic concepts. In the event that a student displays a poor performance on assignments or a test, we have introduced a series of interventions to improve student learning. A variety of teaching mechanisms were adopted to maintain students’ interest in the subject. The data is statistically compared with control groups. (Received September 24, 2018)