1145-L1-440 **Ariel Cintron-Arias*** (cintronarias@etsu.edu), Department of Mathematics and Statistics, Box 70663, East Tennessee State University, Johnson City, TN 37614-0663, and **Michael Garrett** and **Ryan Nivens**. *Improving Distance Learning of Advanced Mathematics.* Preliminary report.

Learning mathematics above Calculus I with asynchronous online content is demanding for students. Their time management and self-discipline must leave almost no room for error. One of the key aspects in achieving proficiencies is for the distance-learning students to receive high-quality feedback about their academic progress. We devised a plan to improve the quality of the feedback provided to the distance-learning students that included: (1) office hours by video conference technology; (2) supplemental instruction with live video streaming and archive of recordings; (3) automatically graded exercises with multiple but limited submissions; (4) portfolio exercises that were manually graded, and in selected cases could be resubmitted to earn recovery points; (5) proctored examinations using an electronic platform to display questions, while collecting hand-written answers in examination booklets; (6) Reports of online activity generated by the students while tracking completion of weekly expected tasks. We successfully implemented this plan during a 10-week summer session in three different courses: Calculus II; Linear Algebra; & Differential Equations. In this talk, we report some of our preliminary results in implementation. (Received September 06, 2018)