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Calculus course plays vital role in the study of undergraduate mathematics however understanding of the concept is not being met in most calculus courses. Hence there is a need to take special care in determining an effective method of teaching students in these courses. If we want them to gain a conceptual understanding that goes beyond performing routine calculation. The major focus is students' conceptual understanding of the course, in particular, in determining how we can teach the course and improve the teaching and learning process so that the student will have more internally consistent concept image. Applied calculus II course is one of the sequence courses in UTD that gives students a substantial mathematical concept and skill set to have a profound impact on their attitude and success towards their advanced courses. The purpose this paper is to investigate student understanding of the course, identifying factors which affect students and improve their understanding of the course. The paper discuss new results including identifying the topics that has impact to the course and assessing student understanding of the course with possible recommendation (Received September 04, 2020)