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Simei Tong* (tongs@uwec.edu), Department of Mathematics, University of Wisconsin-Eau Claire, 105 Garfield Ave., Eau Claire, WI 54701. *How to Engage and Challenge Students in Learning Calculus*. Preliminary report.

Team based learning has been proved a successful teaching method in past three years. This talk will focus on team based learning in calculus II course. In order to enhance the quality of team based learning, the author conducted student three surveys in a semester and thoughtful assignments for team work. First survey is to understand the students' background of knowledge, learn habits, and questions to help students to set up a big learning goal for the class. Second survey is to get opinions of the instructional design, the assessment tools, course activities, confidence of learning so that instructor can adjust the procedure of the course accordingly. The final survey is a repeat of 2nd survey to see how much that students have improved through the semester. Team work assignments are designed to engage weak students involving in learning and challenge strong students to learn more. The talk will explain how to organize groups, design assignments of team work, promote learning activities, and handle difficulties. The goal of the practice is to get students involving in learning and performing as well as they can. Student survey results and academic performance results will be presented. (Received September 08, 2006)