Konstantina Christodoulopoulou* (christod@uconn.edu), Fabiana Cardetti (fabiana.cardetti@uconn.edu) and Steven Pon (steven.pon@uconn.edu). Analyzing Student-Generated Questions in Calculus. Preliminary report.

An essential component of learning and scientific inquiry is asking questions. Analyzing the questions our students ask can contribute to a better understanding of students’ learning difficulties and can inform changes in instruction. Although several studies have demonstrated the substantial educational potential of examining students’ questions for science teaching and learning, significantly less has been done to study student questions in mathematics courses at the college level. The central research question of our study was: What do student-generated questions reveal about their understandings and misunderstandings from calculus lectures? The participants in this study were thirty-six students taking a business calculus course where lectures were delivered in short online videos. Data for this study consisted of 175 questions that the students generated after watching the videos. In this talk we will present the results of the qualitative analysis that reveal students’ thoughts, struggles and successes, as well as provide insights for teaching improvements that support student learning. (Received September 17, 2013)