Teaching mathematical concepts in the abstract is a non-starter in the nowadays undergraduate classes. Constantly demonstrating the mathematical ideas with suitable applied problems helps the exposition, but requires the use of diverse applied choices to address the diversity of the science and (in some cases) non science majors present in the classes. The motivation of the students also varies widely, which is especially true for open enrollment institutions. We overcame many of the above mentioned problems by setting up a study abroad month long program with three courses taught simultaneously and enhancing each other – Calculus, Tropical biology and Undergraduate research in Biology. This paper compiles the scientific, pedagogical and sociocultural findings in the inaugural execution of the program. (Received September 22, 2015)