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Surprises, Insights, and Challenges with the "Long" Calculus Course

The "long" calculus course refers to a first year offering at University of New Brunswick that incorporates both the pre-calculus and introductory differential calculus courses over the entire academic year. Only three credits are awarded with students writing the calculus course exam in common with any winter sections. One section has been offered annually for many years with usually about 75 students, though this year there are over 100 students in the long calculus course.

Who are the students in this class? What benefits does this course option offer? What concerns does the course address and/or raise through its unusual setup? This being my third time teaching the course has given me a window for reflection on such questions. Various factors affect the picture including not surprisingly the calculus narrative itself along with prior individual mathematical experiences, class size, pace, and advising practices. However it is the surprising interplays - whether intended or not - that have struck me as being significant to bring into the presentation. Amongst these elements are physical and mental health, the placement test, and the development of community and relationship.

The course has a blend of strengths and weaknesses, along with an unusual changing personality of its own shaped largely by the teacher and students in any given year. An effort will be made to bring forth some provocative insights and observations with the intention of enriching the discussion of the first year experience.