We present the design of a first-year seminar course for science students who also take a developmental mathematics course. The mathematical course objective is to improve the students’ mathematical abilities while at the same time showing them examples of how mathematics was (and is) used in the physical and biological sciences. Examples include: Copernicus and Galilei: from linear to quadratic functions; Kepler: power functions; Fibonacci and Malthus: exponential growth models, Mendel and Darwin/Hardy-Weinberg: probability and difference equations. Spreadsheets are an important tool for the second part of the course. (Received September 25, 2018)