What follows are suggestions for quantitative learning goals that students should have acquired within each year of study. As such subsequent years’ courses can build upon this foundation. These are intended to facilitate discussion. What is not presented is a road map to achieving these goals through existing or new courses. We suggest that first agreeing on the outcome, then discussing how best to achieve it may be the most productive path forward.

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| **Year** | **Goal** | **Accumulation of Necessary Skills** |
| 1 | For students should be comfortable with a culture of ‘data’ and what constitutes evidence and different ways of quantitative understanding.  Students should be able to interpret data presented using the aid of figures and/or tables | Interpreting figures  Understanding trends  Understanding uncertainty |
| 2 | a. Students should have a working understand introductory statistics  b. Students should have a rudimentary understanding of programing; ability to manage, manipulate, and visualize data. | Working with spreadsheets  Understanding basic programing languages (e.g., R, python)  Application of basic programing to manipulate and visualize data |
| 3 | When given a problem and a range for data, students should be able to independently generate hypotheses, select and execute appropriate statistical tests, and to present results graphically. |  |
| 4 | Students should be able to independently ascertain a problem.  To address the problem, students should be able to design and execute a means to test hypotheses with a models, simulations or experiments.  Students should be able to communicate their results with the aid of figures and tables. |  |