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The discrete mathematics course at Mercer University has come to serve as a mathematics bridge course for computer science and computer engineering majors that is distinct from the bridge course for mathematics majors. Students taking this course tend to possess a degree of aptitude and familiarity with programming but have little knowledge of or inclination toward proofs. By adding a programming component using *Python* to the course, we invite the students to explore ideas, demonstrate applications of the mathematical topics, and develop thinking and communication habits that are helpful in advancing their understanding of proofs. In Part I of this talk we will discuss our motivation for adding computer programming, our choice of projects, and parallels in programming and proof methods that can be used in a discrete mathematics course. In Part II, we will give an assessment of this three year project and describe pitfalls and future plans. (Received September 19, 2007)