1145-C5-1969   **Mohamed Jamaloodeen*** (`mjamaloo@ggc.edu`), Georgia Gwinnett College, 1000 University Center Lane, Lawrenceville, GA 30043. *Using an open source platform like Scilab or Octave as a framework to introduce students of discrete mathematics to computer programming.*

In discrete mathematics, students are challenged when asked to analyze/implement algorithms. One possible reason is that basic computer programming is not integrated into the general mathematics curriculum as is done in high schools in France. Students enrolled in discrete mathematics are expected to be familiar with programming, yet most have not even had a rudimentary exposure to it. Many students first see programming using advanced object-oriented program languages like Java or C++. They have to master concepts such as algorithms, and program flow, in addition to the advanced syntax of object oriented programs. Historically, students learned computer programming using high level languages like FORTRAN. Now, many open source high level computational programming environments can be used to expose introductory mathematics students to programming, including Python, Scilab, and the statistical programming environment R. We present a framework for integrating programming concepts in a discrete mathematics course using a platform like Scilab. We discuss sample programming assignments and projects consistent with this framework, aimed at teaching students to analyze as well as design algorithms and their corresponding pseudo-code, and to implement these writing Scilab programs. (Received September 24, 2018)