**One Session Overview to Programming Using Python**

We provide an overview of computer programming.  This is a **one session** overview. The student needs no prior computer programming experience.  Basic computer experience is assumed.  The popular Python programming language is used as an **example**.  Included in this session are a number of simple but realistic examples in Python which the instructor shows, runs, modifies and runs again.  This session emphasizes **student** **viewing**.  **Doing comes later.** If interested in learning more, the student is encouraged to attend our free course: *Introduction to Programming using Python*.

Programming areas demonstrated in this session include the following:

* **Programming concepts:**
  + **program** - telling the computer what to do
  + **program file** – store a program
  + **programming language** – rules for the telling
* **Python parts:**
  + **program structure / layout:**comments, indentation, import
  + **calculation / comparison**: +, -, \*,  \*\*, /, //, %, (), +=, \*=
  + **variables –** named places to store stuff
  + **control flow**:
    - **if**, **else**
    - loops: **while**, **for**
* **Data Organization**
  + Lists
  + Dictionaries / Structures
* **Functional Grouping:** **Functions**
* **Data + Control:** – **Classes** / **Objects**