**Python for GDS**

*Week 1:*

* Python is object-oriented and has a lot of pre-built data structures
* Python is an interpreted language (as opposed to compiled), which means its much slower but also portable and easy to use

*Week 2:*

* Strings are immutable data types
* ‘del’ removes elements/slices from a list **destructively**
* ‘extend’ modifies a list (unlike concatenation which must be assigned to a variable)
* ‘append’ and ‘pop’ treat the list like a stack
* **tuple** – number of values separated by commas, immutable
* **set** – unordered collection with no duplicate elements
  + support **union**, **intersection**, and **difference**
  + no index
  + defined with curly braces
  + python removes duplicate elements
* **operations with sets**
  + union: brac1 | brac2
  + intersection: brca1 & brac2
  + difference: brca1 – brca2

*Week 4:*

* **Biopython**: tools for python/bio-I
  + **Parsers** for FASTA, Genbank
  + Access to online services
  + BLAST etc.
* See notes