Week	Dates (T-R) Winter	Topic	Learning Objectives	
			Lecture	Lab/Coding
1	Sep 2 - 4	Introduction	(1) Review course objectives, topics, assignments, and policies (2) Introduction to Python Programming	Set up the Python environment to get it up and running using Pycharm.
2	Sep 9 - 11	Variables and Data types Python Data Structures	(1) Types of Numbers (2) Tuples (3) Booleans (4) Conversions (5) Mutsble vs Immutable (6) User Input and eval()	Lab 01 (Due by The End of the Day)
3	Sep 16 - 18	Python Data Structures	(1) Lists (2) Concatenating and slicing lists (3) in operator in lists (4) Built-in functions and lists (5) String (6) String Slicing and Concatenation (7) String functions	Lab 02 (Due by The End of the Day)
4	Sep 23 - 25	Python standard library Introduction to Modules Try/Except	(1) Using functions from the standard library (2) Importing Python modules (3) Use Math module (4) The try / except Structure (5) sys.exit	Lab 03 (Due by The End of the Day)
5	Sep 30 – Oct 2	For loop and While loops	(1) Iterators (2) Ranges (3) Iterating over dictionaries (4) While loops (5) Using Continue and Break (6) Filtering in a loop	Assignment 1
6	Oct 7 - 9	Conditional Steps & Operators Introduction to functions	(1) Comparison Operators (2) Nested decisions (3) Writing our own functions (4) Arguments & Parameters (5) Return Value	Lab 04 (Due by The End of the Day)
7	Oct 14 - 16	More on functions	(1) Why use functions? (2) Scope (3) Passing Mutable vs. Immutable Variables to Functions (4) More on Functions	Lab 05 (Due by The End of the Day)
9	Oct 21 - 23	No Classes		
	Oct 28 – Oct 30	Reading and writing files	(1) Opening a File (2) Closing a file (3) Searching through a file (4) Writing a file (5) The with statement	Assignment 2
10	Nov 4 - 6	Introduction to pandas	(1) pandas Integration (2) DataFrame (3) Pandas Series (4) Filtering rows and columns from a DataFrame	Lab 06 (Due by The End of the Day)
11	Nov 11 - 13	Regular Expressions	(1) re.search(), refindall() (2) Greedy vs. Non-Greedy Matching (3) Compling a pattern	Lab 07 (Due by The End of the Day)
12	Nov 18 - 20	Biopython	(1) Sequences in BioPython (2) Transaction and Translation (3) Annotation, locations, features (4) Bio.SeqIO (5) Online Genomic Data with Biopython	Lab 08 (Due by The End of the Day)
13	Nov 25 - 27	Plotting with Seaborn and Pandas	(1) Simple plotting with Matplotlib and Seaborn (2) Histograms (3) Draw plots of two variables (4) Pair Plots (5) Plotting subplots	Final Project
14	Dec 2 - 4	Using external resources Python tips	(1) Common Python Error Types (2) XML, JSON, and Using Web Services	
15	Dec 9 - 11	Python tips / Handling Errors	(1) Common Python Error Types (2) Syntax errors (3) Semantic errors (4) Run-time errors	Final Exam