2020 Quantitative Biology Bootcamp, CSHL School of Biological Sciences

Instructor: Justin B. Kinney, <u>ikinney@cshl.edu</u>

GitHub Repository: https://github.com/jbkinney/21 qbbootcamp

Day 1: Wednesday, September 1, Hershey East (Hershey), 10am - 5pm 10:00am - 10:30am: Overview of Quantitative Biology (lecture) 10:30am - 12:00pm: The Unix command line (tutorial) 12:00pm - 1:00pm: Lunch (provided) 1:00pm - 1:30pm: Introduction to Python and Jupyter Notebooks (tutorial)

1:30pm - 3:00pm: Python: data types (tutorial)

3:00pm - 3:30pm: Break

3:30pm - 5:00pm: Python: flow control (tutorial)

Day 2: Thursday, September 2, Hershey East (Hershey), 10am - 5pm

10:00am - 10:30am: Overview of High-Performance Computing (lecture)

10:30am - 12:00pm: Read mapping using Elzar (tutorial)

12:00pm - 1:00pm: Lunch (provided)

1:00pm - 1:30pm: Introduction to Pandas (lecture)

1:30pm - 3:00pm: Pandas I, TF analysis (tutorial)

3:00pm - 3:30pm: *Break*

3:30pm - 5:00pm: Pandas II, Replication origin analysis (tutorial)

Day 3: Friday, September 3, Hershey East (Hershey), 2pm - 6pm

2:00pm - 2:30pm: Introduction to Data Visualization (tutorial)

2:30pm - 4:00pm: Matplotlib (tutorial)

4:00pm - 4:30pm: Break

4:30pm - 6:00pm: Seaborn (tutorial)