

## 2021 Quantitative Biology Bootcamp, CSHL School of Biological Sciences

**Instructor:** Justin B. Kinney, [jkinney@cshl.edu](mailto:jkinney@cshl.edu)

**GitHub Repository:** [https://github.com/jbkinney/21\\_qbbootcamp](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)**