

2022 Quantitative Biology Bootcamp, CSHL School of Biological Sciences

Instructors:

- Justin Kinney, jkinney@cshl.edu
- Ivan Iossifov, iossifov@cshl.edu

Teaching assistants:

- Armin Scheben, scheben@cshl.edu
- Carlos Marti Gomez Aldaravi, martigo@cshl.edu

GitHub Repository: https://github.com/jbkinney/22e_qbbootcamp

Day 1: Monday, 29 August 2022, 10am - 5pm, Bush Hall, Fireplace Room

- 10:00am - 10:30am: **Overview of Quantitative Biology (lecture, Justin)**
- 10:30am - 12:00pm: **The Unix command line (tutorial, Ivan)**
- 12:00pm - 1:00pm: *Lunch (provided)*
- 1:00pm - 1:30pm: **Introduction to Python and Jupyter Notebooks (tutorial, Justin)**
- 1:30pm - 3:30pm: **Python: data types (tutorial, Justin)**
- 3:30pm - 4:00pm: *Break*
- 4:00pm - 5:00pm: **Python: flow control (tutorial, Ivan)**

Day 2: Tuesday, 30 August 2022, 10am - 6pm, Bush Hall, Fireplace Room

- 10:00am - 10:30am: **Overview of high-performance computing (lecture, Justin)**
- 10:30am - 12:00pm: **Read mapping using Elzar (tutorial, Justin)**
- 12:00pm - 1:00pm: *Lunch (provided)*
- 1:00pm - 2:00pm: **Python: flow control cont. (tutorial, Ivan)**
- 2:00pm - 2:15pm: **Introduction to Pandas (lecture, Justin)**
- 2:15pm - 2:30pm: *Break*
- 2:30pm - 4:15pm: **Pandas I, TF analysis (tutorial, Justin)**
- 4:15pm - 4:30pm: *Break*
- 4:30pm - 6:00pm: **Pandas II, Replication origin analysis (tutorial, Ivan)**

Day 3: Wednesday, 31 August 2022, 2pm - 6pm, Bush Hall, Fireplace Room

- 2:00pm - 2:30pm: **Introduction to Data Visualization (lecture, Justin)**
- 2:30pm - 4:00pm: **Matplotlib (tutorial, Ivan)**
- 4:00pm - 4:30pm: *Break*
- 4:30pm - 6:00pm: **Advanced visualization (tutorial, Justin)**