Quantitative Genomics and Genetics BTRY 4830/6830; PBSB.5021.03 Spring 2023 – Cornell / Weill Cornell

Time: Tuesday, Thursday 8:05 am – 9:20 am (Lectures) Thursday 4PM / 5PM **or** Friday 8AM / 9AM (Labs)

Professor Jason Mezey Department of Computational Biology (Cornell) Department of Genetic Medicine (Weill Cornell)

> Cornell TA: Mitchell (Mitch) Lokey mgl77@cornell.edu

Weill Cornell TA: Samuel (Sam) Terkper Ahuno sta55@cornell.edu

Course Times and Locations

Note: Some lectures will be conducted entirely by Zoom (which TBD)

Lectures: T/Th 8:05-9:20AM

Cornell, Ithaca: Weill Hall 226 Weill Cornell: Weill-Greenberg (WGC-A or -B or -C) or Belfer (BB200's-300's classroom) as listed on the classroom schedule

Computer lab:

Cornell, Ithaca Computer Lab 1: Th 5-6PM (in person) Cornell, Ithaca Computer Lab 2: Fri 8-9AM (in person) WCMC, NYC Computer Lab 1: Th 4-5PM (in person) WCMC, NYC Computer Lab 2: Fri 9-10AM (by zoom)

Work Requirements for BTRY 4830 (Undergraduate) vs BTRY 6830 / PBSB.5021.03 (Graduate)

Additional work for graduate students (required to register for BTRY 6830 or PBSB.5021.03) compared to undergraduates (BTRY 4830) will include answering additional questions and content delivery requirements for the final class project.

Note that graduate and undergraduate students will be graded separately.

Help Sessions

Jason's Office Hours: TBA

Note that individual help sessions with Jason (Cornell or WCMC), may be set up by appointment.

Course Website

The official course website will be located at:

https://mezeylab.biohpc.cornell.edu

Suggested Prerequisites (Not Required)

Introductory genetics. Introductory probability and statistics.

Course Work/Grading Policy

Exams: A single mid-term and a final exam. The final exam will be cumulative. Both of these will be take-home exams.

Problem Sets: There will be a short problem set handed out on Tues. or Thurs. approximately every week.

Class Project: A single class project, involving analysis of real data, will be assigned during the second half of the semester (~4 weeks).

Grades: your grades will depend on the course work listed above with the following weights: Mid-Term (20%), Final (30%), Problem Sets (20%), Project (25%), Computer Lab (5% - attendance). A letter grade will be determined from these components. For S/U grading, a letter grade of C- or above is required for an "S".