

Bioinformatics and Genomics (BZ360) Fall 2018

Study guide for exam 1. The dates reference the exercises and slides posted on the schedule.

8/21/18

1. What is genomics and what are some genomics applications we touched on in class?
2. What is bioinformatics?
3. What is computational biology?
4. Why do you need special computational training to do genomics data analysis?

8/23/18

1. What's the difference between a dry lab and a wet lab?
2. What is a server?
3. What are the four components of a computer that we discussed in class and what is each of their functions?

8/28/18

1. What is unix?
2. What is a command line interpreter or shell?
3. What are the parts of command (i.e. command, options, arguments)
4. What do the following commands do?
 - a. cd
 - b. pwd
 - c. ls
 - d. mkdir
 - e. echo
 - f. rm
5. What is a pipe (|) used for?

8/28/18, 8/30/18, and 9/4/18

1. What is bash?
2. What is a script?

3. What is a text editor and which one do we use in class?

9/6/18

1. What is an allele?
2. What does it mean for an allele to be homozygous?
3. What does it mean for an allele to be heterozygous?
4. What are three types of genetic variation discussed in class?
5. What file format are protein and nucleotide sequences typically stored in?
6. What is the difference between local and global sequence alignments?
7. What is blast and what is it used for?

9/11/17, 9/13/17, and 9/18/17

1. What is Python?
2. What file extensions distinguish python and bash scripts?
3. What does the Python print() function do?
4. How do you assign a value to a variable in Python?
5. What is the Python interpreter?
6. What does the Python input() function do?