UCSD BIMM121: Microbiology Lab

Lab Schedule Spring 2022

<u>Professor</u>: Dr. Jake Minich Contact: jjminich@ucsd.edu

Office Hours:

Office Hours: Wednesday and Friday 12:50pm - 2 pm (scheduling not required) TATA

[same place as lab]

\*all emails: subject line must have BIMM121 + "last name first initial of student"... eg BIMM121 Smith J

### **Instructional Assistants**:

C01 Joy Guo: joguo@ucsd.edu

C02 Elizabeth Diaz: eld003@ucsd.edu C03 Logan Chinn: lchinn@ucsd.edu C04 Eesha Rangani: erangani@ucsd.edu

#### Lab Lecture:

Monday, Wednesday, Friday: 9-9:50 am CSB (Cognitive Science Building 001)

Lab:

C01, C02: Wednesday and Friday: 10 am - 12:50 pm C03, C04: Wednesday and Friday 2 pm - 4:50 pm

# <u>Learning Outcomes</u> (Goals of what you'll learn in this class)

- 1. Basic concepts of microbial physiology, genetics, evolution, and ecology
- 2. Experimental design of a microbiome study
- 3. Analyses of microbiome data
- 4. Familiar with computational methods for analyzing microbes
- 5. Troubleshooting molecular / microbiology experiments
- 6. Gain experience in scientific communication (SOP, Abstract, paper,

Required Materials: Computer (OS doesn't matter: Mac, Windows) Internet access, zoom access. Computers are needed for the lab portion and specifically for interacting with remove compute resources. If you don't have access to a computer, see "student resources" on our Canvas page to ask for a loaner. No textbook is required. I will post additional readings on canvas.

# BIMM 121 Lab Manual

AUTHOR: Petrie

ISBN: 9781533923905

STATUS: Required

### Course Structure:

**Lab**: Prior to the lab, students will complete the pre-lab portion of the lab notebook. The actual labs will be held in person at TATA hall 2101 and 2102 according to the course syllabus.

# Grading:

Quizzes (5) 25% in class (15 min) discuss answers afterwards

-this happens every 2 weeks on Monday starting april 11th (w/ exception of first one on wednesday)

Lab Notebooks/report 25%

-notebook should be kept up to date each week

-report (2 total) will be due 1-2 weeks after last module

Lab Attendance 10%

Communication

SOP write-up 10% <on Qiita>

Date: TBD

Presentation 10%

Date: TBD

Lab report 20%

Date: TBD

Extra credit 5-10%

Abstracts for each module (module 1, 2, and 3)

Lab notebooks will be checked for completeness weekly throughout the quarter.

Attendance for each lab will be taken. If students miss more than 3 labs, its an automatic not pass

Final project: this will be a final team presentation based on the microbiome study performed in lab

## Grading Scale:

```
(93-100)
Α
Α-
      (90-92.9)
B+
      (88.5-89.99)
В
      (83-88.4)
B-
      (80-82.99)
C+
      (78.5-79.99)
С
      (73-78.4)
C-
      (70-72.99)
D
      (60-69.99)
F
      (<60)
```

Lab Schedule (tentative)

#### Academic misconduct:

- 1. Cheating
- 2. Plagiarism: using writings or ideas from others without citing the original source.
- 3. Collusion: giving answers to other students, working on exams or assignments together,

#### Modifications:

For 16S analysis, we will be using Qiime2 within Qiita rather than Qiime2 in AWS.

Discrimination and Harassment: The University of California, in accordance with applicable federal and state laws and university policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender, gender identity, gender expression, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition, genetic information, ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The university also prohibits harassment based on these protected categories, including sexual harassment, as well as sexual assault, domestic violence, dating violence, and stalking. The nondiscrimination policy covers admission, access, and treatment in university programs and activities. If students have questions about student-related nondiscrimination policies or concerns about possible discrimination or harassment, they should contact the Office for the Prevention of Harassment & Discrimination (OPHD) at (858) 534-8298, https://ophd.ucsd.edu/, or http://ophd.ucsd.edu/report- bias/index.html