

**BIO 498/598**

# Host-Microbe Interactions

**Fall 2024**

## What to expect

We will learn about host-microbe interactions using the World's deadliest animal – mosquitoes – as a study system. The course is designed to emphasize hands-on research training and real-world host-microbe interaction research experience. Students will conduct an authentic microbiome research project as a class with the intent to publish their work. We will engage in the full process of research including research development and design; sample collection, handling, and molecular analysis; bioinformatics analysis; and synthesis and communication of findings. To place students at the cutting edge of (micro)biology research, the course focuses on the use of next generation sequencing technologies/ OMICS and advanced bioinformatics tools.

**Credits:** 3

**Modalities:** Immersion (in-person) with colloquia and hands-on laboratory sessions

**Enrollment cap:** 24  
(18 undergraduate and 6 graduate student slots)

**Colloquia:** Tuesdays, 10 – 11 am, LSC L1-14

**Lab sections (select one):**  
Wednesdays or Fridays, 10 – 1 pm, LSC L1-74

## Student feedback

“This course was great for really getting to know the research process from start to finish including from looking for gaps in research to learning about the publication process.”

“The course layout. I liked the fact that it covered the whole scientific process from the experimental design step all the way to the data analysis.”

“The best aspects of this course were the large overview of how to use the Agave shell and QIIME2 for analysis of microbiome genomic data. This was an area that I was almost completely unfamiliar with prior, and I'm happy to have the skills now.”

## Contact

Dr. Nsa Dada, instructor

[Nsa.Dada@asu.edu](mailto:Nsa.Dada@asu.edu)



**Course highlights**



**Bio 498**



**Bio 598**

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