

# HOW BIT METAGENOMICS WILL RUN...



## **METAGENOMICS**



We will learn about techniques to study microbial communities through the analysis of a series of **case studies, bioinformatics activities, and JoVE.com videos**. Each activity will include critical thinking and reflection questions. We will use forums to share our findings.



## **DISCUSSION FORUMS**

Discussion forums allow us to share our thoughts and findings in an online environment. Don't be afraid to use the **audio** and **video** recording options, share **images, links**, and anything else that helps convey your thoughts!



## **INDIVIDUAL & TEAM QUESTS**

Questions from case studies will launch you on weekly individual and team quests to **search** for information to **connect** knowledge to campus, regional, and national research and initiatives and bioinformatics tools.

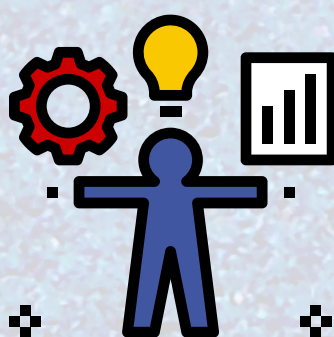


## **WEEKLY MIX TAPE**

I will provide weekly **audio recordings summarizing key concepts** and stating questions to think about as we dive into the analysis of case studies and scenarios.

## **AUTHENTIC PROJECTS**

*I have high expectations and believe all of you have fantastic ideas to contribute.* Individuals will plan, research, and write **scripts for podcasts** explaining metagenomic approaches, techniques, and studies at a high-level. Teams will work on **analyses** to summarize your research on datasets you choose using tools discussed in the course. We will share findings in accessible ways to be posted on the public course website listed below.



# MY PHILOSOPHY...



## NO "THROW AWAY" ASSIGNMENTS

We will learn about metagenomics techniques and studies through the analysis of a series of **case studies and JoVE.com videos**. Each case study and scenario will include critical thinking and reflection questions. We will use forums to share our findings.



## I WILL CHALLENGE YOU

This course is challenging, and we will discuss numerous complex topics. The assignments closely resemble real-world applications. **I believe in you, believe you, and will treat you with respect.** I acknowledge my personal biases and will work with every single participant to **create a community** that fosters inclusivity, creativity, and critical reasoning.



## I WILL RUN WITH YOU

I am a professor but do not wish to *profess*. I will **facilitate** discussions that encourage us to **think deeply** about the topics, datasets, techniques, and applications. I will let you do the learning but work through facilitating discussions that include the **ethical and diversity implications** of the molecular biology approaches we discuss.



## I WILL NOT LEAVE YOU

As an educator, **I want you to learn** and help you evaluate your development and growth. I will use phrases such as "not there yet" and "there is room for growth" along with detailed feedback for you to improve. No assignment is *final*, and we will work together to *master* the material and craft resources that will help you and others later on. **I will help you self-evaluate your progress** through the course and successfully complete assignments.



## I WILL BE READY

As an educator, **I truly love designing learning experiences based on evidence.** I treat my course design as a science experiment. I carefully plan assignments, interactions, and resources for you to develop, grow, and master the material. I will work to ensure resources to help you learn are available, and I am ready to assist you on our journey.

**LET'S GO!**

