BCEM 547 Course Profile

The course description of Biochemistry 547, **Signal Transduction and Regulation of Metabolism**, can be found here.

Generally offered in: Winter semesters

Prerequisite(s): BCEM 393

Antirequisite(s): None

Answered by Dr. Gregory Moorhead

In your own words, can you give a brief summary of what this course is about?

BCEM 547 explores the general principles of intra- and extracellular signal transduction, the proteins involved and similarities and differences across prokaryotes, unicellular and multicellular eukaryotes. The second part of the course integrates metabolism and signaling events. Emphasis is placed on protein phosphorylation as a key event in signal transduction.

What is the main skill you want students to take away from this course?

Understanding the principles of signaling and the commonalities between widely divergent species.

Will a textbook be required for the class? If so, which?

Yes, I use the signaling chapter found in the Karp textbook used in BIOL 331.

What aspect of the course do you think students struggle with the most?

There is a large volume of material and seeing the relationship between different species discussed. Some non-biochemistry students are surprised by the number of protein structures we look at to explore principles of signaling.

What can students do to be successful in this course besides attending lectures?

I always suggest looking at the lecture prior to class so they can learn as we go. If you cannot explain something to someone, you do not understand - so take turns asking and explaining questions with a partner or group.

What do you think is the most effective way that students can prepare for an examination in the course?

Work with the material after each class and take turns asking and explaining questions with a partner or group.

Are there other resources that students can use besides the textbook and lecture notes?

I may suggest a few articles as we go.

Online delivery

*The features of the class could potentially differ from these responses as the format of the course is solidified.

Will classes be in person or delivered online? **Online**

Will lectures be synchronous or asynchronous? **Synchronous**

Will classes be recorded?

I have not decided if classes will be recorded.

Will this course have a lab or tutorial component this Winter 2021 semester? **No**

Extra questions

Do you have any other advice for incoming students taking BCEM 547?

Remember, this is biochemistry, so we always seek answers at the molecular level.

Do you have any stand-out memories from teaching this course?

The ooo's and ahhh's when we look at a TOR-complex movie!