

Special Problems: Torres Lab

BIOL 8901; BIOL 8902

3 credits

Location, day, time: TBD

Instructor Information

Instructor

Prof. Matthew Torres

Email

mtorres35@gatech.edu

Office Hours & Location

By appointment

General Information

Course Description/Modality:

This special problems course is designed for students who wish to gain research experience in an active laboratory with intent to earn their PhD. The Torres lab's goal is to understand how protein post-translational modifications (PTMs) regulate protein structure, function, and cell behavior. We approach this challenge using three primary tools, including: Mammalian and Yeast cell systems; Mass spectrometry-based proteomics; Bioinformatics, Structural biology, and Machine learning. We address questions at multiple levels of complexity - from proteome to protein.

Course Goals and Learning Outcomes:

Students are expected to contribute to research in the lab with an intent to publish their work. Mentorship by graduate students and postdocs will be arranged on a case-by-case basis.

Recommended background knowledge:

The class will be immersed in protein biochemistry concepts and it is advisable, though not required, to have experience (either from a biochemistry class and/or research) in this area before taking this class.

Course Requirements & Grading:

A minimum of 10 hours per week is expected for undergraduates. Students should demonstrate continuous evidence of significant progress in the form of experimental results and/or other contributions to Torres lab research. All trainees are required to attend as well as present at Torres lab research meetings that happen every 2 weeks. Grading will be based on strong commitment to achieve these goals as assessed both by the student direct mentor and Dr. Torres.

Campus Resources for Students

Undergraduate Student Academic Success Resources:

For undergraduate courses, a sample statement that might be included in your syllabus for this section is “A list of resources for undergraduate students’ academic success and information about advising can be found at [Success at Tech](#).”

- Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

Graduate Student Academic and Professional Success Resources:

For graduate courses, a sample statement that might be included in your syllabus for this section is “A list of resources for graduate students is given on the [Office of Graduate and Postdoctoral Education](#) website. Specific information for [current graduate students](#) includes

- [Academic Resources](#) such as the Communications Center, Language Institute, Library, Catalog, Registrar, resources for conducting research, Advocacy and Conflict Resolution resources, and how to manage unexpected situations that may impact your academic performance;
- [Student Resources](#) such as Campus Services, Child Care/Family programs, Health & Wellness, Career Services, and the Student Resource Guide; and
- [Professional Development](#) such as the programming from the Career Center and other professional development resources and events”]

Student Well-Being: [Some faculty include resources that support students’ mental and emotional well-being. Including these additional resources on your syllabus communicates to students that you care about them and that you are committed to facilitating their academic progress. For all courses, a sample statement that might be included in your syllabus is

“At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list](#) of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being ([student-resource-guide \(gatech.edu\)](#))

More resources on supporting student well-being on the syllabus and beyond are available through the [Learning Well Initiative](#).