

UNDERGRADUATE PROGRAM IN BIOLOGY & MEDICINE

# NEW COURSES

## SPRING 2019

FOR MOST RECENT INFORMATION & PREREQUISITES PLEASE CHECK THE OFFICIAL CDCS WEBSITE: [HTTPS://CDCS.UR.ROCHESTER.EDU](https://cdcs.ur.rochester.edu)

### BIO 267 HUMAN EVOLUTIONARY GENETICS

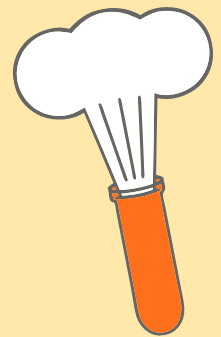
4 CREDITS

This course explores human evolution as revealed by data from genetics and genomics. Using principles from evolutionary and population genetics, we will learn how inferences are made about: human origins; the demographic and migration history of human populations; our relationship to, and interactions with, other archaic human species; the forces that have affected the evolution of functional elements in the human genome; the relationship between molecular genetic and phenotypic evolution; the interaction between cultural and biological evolution; and the causes and consequences of genetic and infectious diseases.

### BIO 273W WRITING FOR GRANTS, FELLOWSHIPS, AND SPECIAL OPPORTUNITIES

2 CREDITS

How do you get funding to support yourself while conducting summer research? How do you draft a winning Fulbright fellowship essay? These are the types of questions that we want to help you answer! In this course, students will be guided through refinement of your persuasive writing skills culminating with a completed application for external funding. Depending on participant's interests the focus of this course may include writing CVs, biographies, statements of interests and summarizing the goals of their research – or other - project that they would like funded. This course will involve extensive revision based on peer and instructor feedback. The class can be used to fulfill 1 of the 2 required Upper-Level-Writing experiences in biology.



## **BIO 274W READING AND WRITING ABOUT RESEARCH IN THE SOCIAL, NATURAL, AND APPLIED SCIENCES**

**4 CREDITS**

Drawing on the concepts of discourse community and rhetorical genre analysis (e.g., Bazerman, Berkenhotter & Huckin, Swales), this course investigates ways of understanding the choices writers make when communicating about the sciences, with the goal of better understanding how to read and write as an 'insider' in your chosen discipline. You will develop a technical vocabulary and set of skills that allow you to identify and describe recurring patterns and describe writer choices within those patterns. Using these tools, you will investigate how writers convey meaning in different disciplinary situations and why they make the writing choices that they do in order to convey meaning. Through a final research project of your choice, you will practice using what you have learned to communicate the results of your own research.

## **BIO 278 BIOCHEMICAL MECHANISMS OF CELLULAR PROCESSES**

**4 CREDITS**

This class applies biochemical concepts to describe the molecular mechanism of important cellular processes. Topics include the biochemistry of DNA repair, transcription, translation and protein degradation. Practical application of these concepts to biotechnology and medicine will also be covered.

## **BIO 396W RESEARCH PAPER WRITING**

This 1-credit course is intended as a follow-up to BIO 395, and coaches you through the process of writing up your research. You will investigate types of research reports and conventions for science writing in BIO, and apply what you have learned to writing your own report. A BIO faculty member will lead the course, with writing workshop and writing fellow support from the Writing, Speaking, and Argument Program, and you are also expected to work with your research mentor to investigate nuances of communication in your particular area and to receive and respond to feedback on your report. We will meet every other week for 2.5 hours, alternating between workshops on writing topics (e.g., writing an introduction) and supported writing groups where you can work on your own writing, receive peer feedback, and ask questions.