



BIOLOGY

COLORADO STATE UNIVERSITY



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Upcoming Important Dates

April: Fall Registration Begins!

8 - Start for Seniors

12 - ... For Juniors

19 - ... For Sophomores

26 - ... For Continuing Freshmen

Check Ramweb for your personal registration access date/time!

IN THIS MONTH'S NEWSLETTER:

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Drop-in Advising Hours

Every Monday through Thursday, 1-3pm

Considering a Semester Withdrawal or Late Drop/Withdraw Appeal?

Deadlines: May 10th for Withdrawal, May 17th for Appeals!

REGISTRATION INFORMATION



Be Registration Ready!

- Clear any **holds** on your registration—see Ramweb to check!
- Complete **prereqs** (like **Chem Prep** or **Math Placement**)
 - Get an **advising code** if you are:



Students on Academic Probation

Probation 1 students:

- ⇒ Watch the short Academic Success Seminar (available in Canvas Advising Portal)
- ⇒ Complete the Academic Self-Assessment Worksheet
- ⇒ Meet with an ASC to discuss your plan for success and get your advising code!

All Probation 1 and Probation 2 students:

- ⇒ Schedule an appointment with an ASC to receive your advising code
- ⇒ Plan to discuss summer classes as a way to improve your GPA!

Before your registration date!

Students in Your First Semester at CSU

Complete any placement procedures:

- ⇒ Chem Prep - remember this takes time!
- ⇒ Language placement - info here: <https://languages.colostate.edu/placement-exam-2/>
- ⇒ Math Placement - work through the [review materials](#) and stop by the [PACe Center](#) ASAP!
- ⇒ DSP Survey - do you need composition? Find out here:
<https://composition.colostate.edu/students/placement/>

Meet with an ASC to review your degree requirements, check your plan, and get your advising code!

Before your registration date!

DID YOU KNOW?

Advising appointments are typically booked up to 3 weeks in advance
this time of year - PLAN AHEAD!

Schedule your appointment here:

<http://www.biology.colostate.edu/current-students-advising/>

Upper Division Courses Available FALL (only) 2019

BZ COURSES

BZ 212 - Animal Biology - Invertebrates

BZ 223 - Plant Identification

BZ 330 - Mammalogy

BZ 333 - Introductory Mycology

BZ 346 - Population & Evolutionary Genetics

BZ 348 - Theory of Population and Evolutionary Ecology

BZ 349 - Tropical Ecology & Evolution

BZ 360 - Bioinformatics and Genomics

** BZ 401 - Comparative Animal Physiology **

** BZ 418 - Ecology of Infectious Diseases **

BZ 433 - Behavioral Genetics

BZ 462 - Parasitology and Vector Biology

BZ 471 - Stream Biology and Ecology

BZ 472 - Stream Biology and Ecology Lab

BZ 482C - Practices in Marine Biology

BZ 505 - Cognitive Ecology

BZ 577 - Computer Analysis in Population Genetics

BZ 578 - Genetics of Natural Populations

OTHER COURSES

BC 401 - Comprehensive Biochemistry I

BC 463 - Molecular Genetics

BMS 325—Cellular Neurobiology

BMS 409 - Human and Animal Reproductive Biology

BMS 420 - Cardiopulmonary Physiology

BMS 430 - Endocrinology

BSPM 302 - Applied and General Entomology

BSPM 445 - Aquatic Insects

** ERHS 430 - Human Disease & the Environment **

FW 304 - Conservation of Marine Megafauna

FW 400 - Conservation of Fish in Aquatic Ecosystems

MIP 420 - Medical and Molecular Virology

MIP 425 - Virology and Cell Culture Lab

MIP 450 - Microbial Genetics

SOCR 455 - Soil Microbiology

** special this fall semester only **

Refer to your major checksheet or speak with an advisor about whether courses can be applied to your major!

Schedule an advising appointment here:

<http://www.biology.colostate.edu/current-students-advising/>



A Conversation with . . . Dr. Kim Hoke!

What is your academic background? Your alma mater?

“I went to Stanford for undergraduate and graduate school. As an undergrad, I majored in biology and physics because I couldn’t decide. In grad school, I studied neuroscience.”

What courses do you teach?

“BZ 433 Behavioral Genetics (now added for Fall 2019!), BZ 466 Biological Basis of Animal Behavior, and sometimes Life 102.”

What do you enjoy most about teaching these courses?

“BZ 433 and BZ 466 are both small courses that are focused on reading scientific papers and synthesizing information in ways that is hard to do in big classes. Interacting closely with the students as they rise to the challenges in this class is very rewarding, as is talking about how the science we’re learning about relates to real issues in society.

Life 102 is very different. There I enjoy helping students learn new study approaches that will be critical for their future college careers. This past year, I participated in a pilot program in which we had Learning Assistants in the classroom, and I really had a great time developing many new in-class activities with lots of input from the LAs.”

What is your primary research interest?

“How genetic and developmental mechanisms together shape evolution.”

Can you briefly describe the path that brought you to your current research interests?

“I chose to study neuroscience for my Ph.D. because I was fascinated by the brain, but my graduate school neuroscience program had a real biomedical focus that wasn’t my long term interest. As I finished, I wanted something very different, and I by chance had the opportunity to work as a postdoc on frog mating communication at the University of Texas at Austin and the Smithsonian Tropical Research Institute in Panama. I fell in love with field research and evolutionary biology! When I got to CSU, I started doing research on frog hearing in Ecuador. There, I learned from my collaborators about the frogs and toads that had lost ear structures, and I was really captivated by that puzzle – why would they get rid of something so important for finding mates? As for the guppies, I was studying neural mechanisms of behavioral evolution when I interviewed at CSU. Cameron Ghalambor showed me a graph of intriguing behavioral data from guppies during my interview. He said that we should work together if I came to CSU – and we basically did as soon as I arrived. “



Photo by: David Herasimtschuk

FACULTY FOCUS



What are some of the current graduate student projects?

“Rachel Fleming, a master’s student, is looking at causes of ear loss in toads. A previous grad student named Molly showed that many species of toads independently evolved the loss of middle ear structures, and she measured the impacts on hearing, skull structures, and behavior. Now Rachel is trying to characterize differences in developmental processes between species that complete middle ear development and those that don’t.

Kim Dolphin, a Ph.D. student, is studying decision making in male guppies as they get their first opportunities to mate. She looks at how genetics, developmental rearing environment, and prior mating experience influence the males’ behavioral strategies and how well they tailor their strategies based on female responses. She’s now relating these decisions to functional neural circuits in the male guppy’s brain.

Miles Whedbee is a Ph.D. student linking population differences in brain gene expression and behavior. He’s investigating alternative splicing, RNA editing, and small RNA expression to get a holistic view of how developmental exposure to predator cues alters gene expression in the brain, and whether fish from places with lots of predators respond differently to predator cues than fish from places with fewer predators.”

“Are there any opportunities for undergraduates to get involved with your lab? If so, what sort of work would they help with?”

“We currently have many undergraduate researchers. We have a team who help take care of fish, run behavioral experiments, and analyze videos of fish interacting. Some of the undergrads work on neural circuit function questions in guppies, which involves immunohistochemistry and lots of microscopy. We also have students who analyze tadpole development, either examining morphology in microCT scans or using histology slides, or using immunohistochemistry to compare protein distribution across species. We don’t currently have any undergrads working on bioinformatics, but we would welcome someone who wants to try.”

What qualities are you looking for in a lab volunteers?

“We want our volunteers to be reliable and diligent. Many of these tasks are pretty repetitive, so everyone on the project needs to pace themselves well. We also appreciate initiative and attention to detail in our volunteers.”

How many hours should students expect to be in the lab per week?

“Most of our students spend 6 - 10 hours per week in the lab.”

How should students go about applying to volunteer with your lab?

“Read our lab website and a couple of our papers. Write to either me or one of the graduate students to express your interest in volunteering. Include a CV and let us know why you want to work in the Hoke lab.”



CAMPUS OPPORTUNITIES



Haven't yet landed your internship? Still need a job after graduation? Interested in on-campus jobs? If you answered yes to any of these questions, then plan to attend the:

Just In Time Job & Internship Fair

Wednesday, April 3, 2019

4:30 to 7:00 pm

LSC Grand Ballroom

Employers will be looking to hire students for:

- full-time • part-time • internship • seasonal • on-campus, part-time student jobs

Bring your resume and CSU ID, and dress for success!



Interested in being a 2019 Ram Welcome Leader?

Attend one of these mandatory info sessions AND apply by April 3rd at 11:59pm MST at

<http://www.otp.colostate.edu/ram-welcome-leaders.aspx>!

Monday, April 1st 5:30- 6:30pm: Clark A102

Tuesday, April 2nd 6:00-7:00pm: Clark A102

Wednesday, April 3 5:00-6:00pm: Clark A103

RAM WELCOME

EXPERIENCE CSU

PREPARING FOR GRADUATE
AND PROFESSIONAL
PROGRAMS

DREAMers For STEM & HEALTH Summit

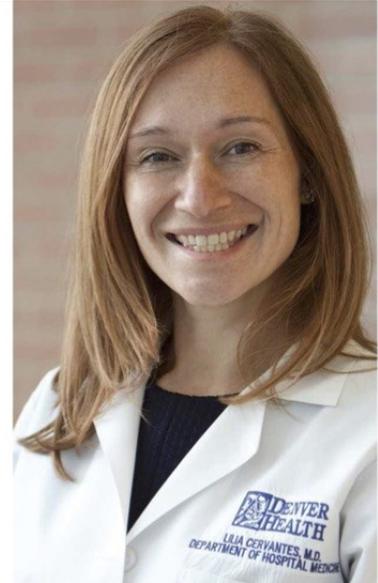
Friday & Saturday, April 5-6,
2019
University of Colorado Anschutz
Medical Campus
Aurora, Colorado

**ALL UNDERGRADUATE
DACA/UNDOCUMENTED
STUDENTS ARE WELCOME!**

**BUILD YOUR NETWORK
AMONG STUDENTS,
PROFESSIONALS, AND
ALLIES THAT SUPPORT YOU
ON YOUR JOURNEY TO
STEM AND HEALTH!**

SCAN THE QR CODE TO SIGN-
UP, OR GOOGLE SEARCH
"DREAMers for STEM &
HEALTH Summit"!

For more information, please
contact us at
USS@ucdenver.edu



Dr. Lilia Cervantes, MD
Associate Professor,
General Internal Medicine,
University of Colorado
Department of Medicine,
Denver Health

"Dr. Cervantes has dedicated her career to both creating a healthcare workforce that is diverse as well as conducting research to improve patient-centered and clinical outcomes among undocumented and documented Latinos on dialysis."



Undocumented Student Services
UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS



EDUCATION ABROAD OPPORTUNITIES

Study Abroad: Marine Biology in Mexico

Experience Marine Biology in two of the most productive and biologically diverse marine areas in North America! **Application deadline is April 15!**

[Apply now!](#)



Course Information

Course Title: BZ 482C Practices in Marine Biology

3 Upper Division Credits - Prerequisite: LIFE 320

Where: Baja California Sur, Mexico

Program Dates: Class during the fall semester, Travel Nov. 23 – Dec. 1

Application Deadline: April 15, 2019

Scholarship Funding Available

Both merit-based and need-based scholarships are available for education abroad students! Learn more on the [Education Abroad Scholarships Opportunities webpage](#).

Program Activities

Isla Espiritu Santo & the Sea of Cortez

The group will take a high speed motor boat to Isla Espiritu Santo to conduct field research while also kayaking, stand up paddle boarding, swimming with sea lions, swimming with whale sharks, hiking, snorkeling and exploring.

Magdalena Bay Exploration

Magdalena Bay is the largest wetlands ecosystem on the west coast of Baja and one of the most important in North America. The World Wildlife Fund ranks it as one of the most important coastal habitats in Mexico. The Bay is the prime calving ground for the gray whale. Magdalena Bay also has mangrove forests, barrier beaches and sand dune islands, all of which contribute to the incredible scenery and biological diversity of the area.

More Information

Questions? Contact

Email: Shane.Kanatous@colostate.edu or Graham.Peers@colostate.edu

EDUCATION ABROAD OPPORTUNITIES

Study Abroad: Ecology, Evolution, & Conservation of Ecuadorian Biodiversity

Experience a variety of tropical habitats and learn the process of conducting ecological field research through the design and implementation of research projects.

Application deadline is April 15!

[Apply now!](#)



Course Information

Course Title: BZ 449A Ecology/Conservation - Ecuadorian Diversity

4 Upper Division Credits - Prerequisite: 3 credits of any introductory biology course

Where: Ecuador

Program Dates: 4 - 5 pre-departure meetings in the Fall semester, in-country dates are January 2 - 17, 2020

Application Deadline: April 15, 2019

Scholarship Funding Available

Both merit-based and need-based scholarships are available for education abroad students! Learn more on the [Education Abroad Scholarships Opportunities webpage](#).

Program Activities

Activities to include visits to the Andean grasslands, Amazon Rainforest, and the Galapagos Islands.

Students will:

- Learn about diverse tropical ecosystems of Ecuador and the threats facing these different ecosystems.
- Apply the steps involved in conducting ecological field research - from making observations to communicating results.
- Gain experience collaborating with international colleagues.

More Information

Questions? Contact

Email: Chris.Funk@colostate.edu

SUMMER FIELD EXPERIENCE CREDIT COURSES



New Summer Course!
Field Mammalogy

BZ 340, 4 credits

Final Summer Semester 2019: July 15 to August 9

Course Description: BZ 340 provides an intensive introduction to the techniques used to study wild mammals and the principles of field research design. This course provides a unique opportunity to conduct independent research on wild mammal populations using a variety of techniques. The skills gained with these experiences typically translate directly into future job and research opportunities. Results of independent research must be analyzed in an appropriate analytical framework, including statistical approaches, and must be prepared in a way consistent with professional publication requirements. Results will be presented at a symposium that may be attended by members of the CSU scientific community and student peers. The focus of the course is the study of wild mammal populations of Colorado through study in natural habitats along a latitudinal gradient in Colorado, from shortgrass steppe to foothills ecotones to mountain forests.

Instructor: Dr. Tanya Dewey, Department of Biology, Colorado State University.
Email tdewey@rams.colostate.edu for more information and a complete syllabus.

Course Format: This course is taught both on the CSU Campus in Fort Collins and at field locations throughout northern Colorado. There will be several required trips scheduled that involve staying at field locations, such as remote sites, the Mountain Campus, or the Semi-arid Grasslands Research Center. Students **MUST** plan on being in residence at field sites during the field portion of the course, there are no exceptions to this requirement. Every effort will be made to ensure that sites are accessible.

Prerequisites: BZ110 or Life 103



MAKE TIME FOR YOUR HEALTH AND SUCCESS

TILT | ACADEMIC SUCCESS WORKSHOPS

MONDAYS | 4:30 - 5:30 pm THURSDAYS | 6 - 7 pm

WELL-BEING WEDNESDAYS

Presented by
CSU Health Network

WEDNESDAYS | 4:30 - 5:30 pm

A L L W O R K S H O P S L O C A T E D I N T I L T | R O O M 2 2 1

Tues - Mar 26 | Thurs - Mar 28
SPARK YOUR MOTIVATION

Tues - Apr 2 | Thurs - Apr 4
BENEFITS OF STUDY GROUP

Tues - Apr 9 | Thurs - Apr 11
FUNDEMENTALS OF NETWORKING

Tues - Apr 16 | Thurs - Apr 18
TIME TO BE ORGANIZED

Tues - Apr 23 | Thurs - Apr 25
PROCRASTINATION...still looking for a title

Tues - Apr 30 | Thurs - May 2
EXCELLING IN SUMMER SESSION

Tues - May 7 | Thurs - May 9
FINAL EXAM STUDY TIPS

Wed - Mar 27
A FULL LIFE: PATHWAYS TO WELL-BEING

Wed - Apr 3
TEST ANXIETY

Wed - Apr 10 | Presented by SLiCE
BOOSTING BELONGING

Wed - Apr 17
PHYSICAL SELF-CARE WORKSHOP

Wed - Apr 24
RAMS FAIL FORWARD

Wed - May 1
THE STRESS LESS PROGRAM

Wed - May 8
CREATIVE CHILL-OUT



THE INSTITUTE FOR
LEARNING AND TEACHING
COLORADO STATE UNIVERSITY

More Information and Workshop Descriptions at
tilt.colostate.edu/learning/tiltWorkshops

The most successful students in our department take advantage of academic resources at CSU—try them all!

- ◇ TILT tutoring
 - LIFE102, LIFE103, BMS300, BZ350... the list goes on!
- ◇ Eagle Feather tutoring
- ◇ PACe tutoring
- ◇ Calculus Center
- ◇ Chemistry Learning Resource Center (CLERC)
- ◇ Statistics Success Center
- ◇ Writing Center
- ◇ Office hours



Don't know where to start? Meet with an ASC to make a plan!

Study Tip #348:

After every class period, take 10-15 minutes to review your notes - figure out what is clear and what was confusing or no longer makes sense after class, then go to office hours with questions!

GET INVOLVED

BIOLOGY CLUB MEETINGS SPRING 2019

JANUARY 30TH

FEBRUARY 27TH

MARCH 27TH

APRIL 24TH

ALL MEETINGS ARE HELD AT 7:00 PM IN THE
SMITH NATURAL RESOURCES BUILDING
(NATRS) ROOM 112

CSU Biology Aquarium Club

Spring 2019 Meetings

March 13th

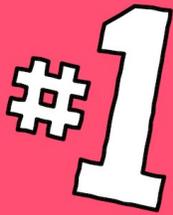
March 27th

April 10th

April 24th

May 8th

All meetings are held at 6:00 pm in the Biology Building
3rd floor common space, S.W. corner of building.



MONDAYS 6-7PM BIOLOGY ROOM
136



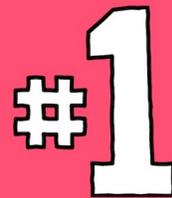
CSU ZOOLOGY CLUB



Spring Semester Meetings



- JANUARY 28TH - SHANE KANATOUS (MARINE VERTEBRATES)
- FEBRUARY 11TH- CANDACE MATHIASAN (PRIONS AND WOMEN IN SCIENCE)
- FEBRUARY 25TH - DR.WITTEMYER (ELEPHANT RESEARCH)
- MARCH 11TH - DR.HOKE (ANIMAL BEHAVIOR)
- MARCH 25TH - ROCKY MOUNTAIN RAPTOR CENTER (AMBASSADOR BIRDS)
- APRIL 8TH - GREENWOOD WILDLIFE REHABILITATION CENTER
- APRIL 22ND - HUMAN-ANIMAL BOND OF COLORADO (DE-STRESS WITH DOGS)



Come and see our great speakers!

