

BIOLOGY STUDENT
NEWSLETTER

AUTUMN QUARTER 2019

ISSUE 33

IMPORTANT DATES
FOR AUTUMN QUARTER

Sept 25	First Day of Instruction
Oct 1	Last day to drop a class without a fee thru MyUW
Oct 2	Biology Apparel Day
Oct 2	All courses require entry codes to add
Oct 4	Last Day to apply to Biology major in Autumn
Oct 8	Last Day to drop a class without the use of the Annual Drop
Oct 15	Last Day to add a class through MyUW
Oct 30	Last Day to Apply for Graduating Senior Priority GSP for Winter
Nov 6	Biology Apparel Day
Nov 1-Nov 17	Winter Reg Priority Period 1
Nov 11	Veterans Day HOLIDAY
Nov 12	Last Day to use ANNUAL DROP or convert to S/NS
Nov 18-Jan 5	Winter Reg Period 2
Nov 28-29	Thanksgiving & Fri HOLIDAY
Dec 2	Mystery Flower contest ends
Dec 4	Biology Apparel Day
Dec 6	Last Day to Withdraw (from all Aut Qtr classes)
Dec 9-13	Final Examination week
Dec 16-Jan 5	Holiday Break
Jan 6	Winter Quarter Starts

Chair of the Biology Department: Dr. David Perkel

Welcome (or welcome back) to Biology!



Dr David Perkel

Dear Biology undergraduate students,

As we begin another academic year, one of the constants in our lives is change. One such change is that we have several new faculty members joining our department.

Assistant Professor Neda Bagheri is a computational biologist studying how cells of different types interact with their neighbors in complex ways, such as in tumor microenvironments.

Assistant Professor Adam Steinbrenner studies how plants defend themselves in the face of caterpillars eating their leaves.

And arriving in December are both **Lecturer Kristiina Hurme**, who will be co-teaching with Karen Petersen, Bio 417 Comparative Reproductive Physiology of Vertebrates in Spring 2020, and **Assistant Professor Alejandro Rico-Guevara**, who studies evolution and physiology of hummingbird bills, including how they are used as weapons or to acquire nectar.

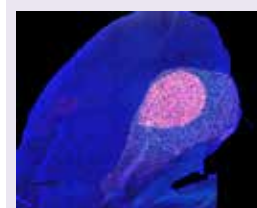
In addition, following the retirement of former **Chair Toby Bradshaw**, who presided over the development and construction of the Life Science Building, I've taken on the Chair position.

I'm a neuroscientist whose research addresses mechanisms of vocal learning and balance in birds. As I've come to get to know the department – researchers, instructors, advisors, support staff, and others – I am appreciating more and more the outstanding team that we have. You can benefit from these amazing individuals immediately by meeting with an advisor, instructor, or TA.

And the change continues. This year Biology is searching for three new faculty members: a lecturer to replace **Scott Freeman**, who has retired from teaching but is still completing research projects; an Assistant Professor working in discipline-based education research; and the **Boersma Endowed Chair in Natural History & Conservation**.

Finally, Biology is fortunate to have a wealth of scholarship, fellowship and research opportunities. I encourage you to ask an advisor about them, and to seize every opportunity you can as you progress towards graduation and the next chapter of your life.

David Perkel



Multi-channel fluorescence *in situ* hybridization image highlighting Area X, a region of the songbird brain that is critical for song learning. Area X is part of the basal ganglia circuit critical for vocal learning. Here the staining indicates high expression of both D1 and D2 type receptors for the neurotransmitter dopamine.

THEY'RE COOL, THEY'RE GROOVY They are going to help you succeed in Biology 180

Biol 180 is the first class in the Biology Intro Series: Mendelian genetics, evolution, biodiversity of life forms, ecology, and conservation biology. It is open to all students interested in biology whether intending to major in the biological science, enroll in preprofessional programs, or fulfill a Natural World requirement.

This article is to help you get to know who the Biology 180 crew are and what each of them do so you can see how they all work together. Here are some fun facts about them, but most important, what advice they think will help you best succeed in Biology 180 this quarter.

DR JON HERRON, LECTURER

Full-time Senior Lecturer teaching Honors and Biology classes.



What is one piece of advice you would give students in your class?

Most subjects get more fascinating the more you learn, so cultivate your interest in biology. Read about current research in the news, watch documentaries, and —as John Parks says— pay attention to the biology around you.

What is your favorite part of the class?

The students! Office hours are particularly fun, because they let me get to know students better and work with them more closely.

What do you think is the hardest part of the class?

For me, the hardest part is writing the exams. I like to use fresh examples, which requires quite a bit of research. For the students, I think the biggest challenge is learning to think about variation among individuals. Our brains seem to do this naturally for humans, but not for other kinds of organisms.

What is your favorite lab?

I like the labs that use living organisms. Especially, the termite lab, where the students get to study behavior.

JOHN PARKS, LAB COORDINATOR

His duties include: Supervisor of the TA lab instruction, exams, regrades, special requests and all things students.



What is one piece of advice you would give students in your class?

Notice biology in the world around you; applications of what we teach are everywhere.

What is your favorite part of the class?

Seeing students start their biology education.

Other than Biology what academic subject would you like to study?

Astronomy or Art History

What is your favorite lab?

The evolution of antibiotic resistance, in which students analyze data contributed by more than 20,000 prior students.

Is there a book/video that you would recommend to students outside of what there is in class?

Cascade-Olympic Natural History by Daniel Mathews. Take it on any walk in Western Washington.

CHRISTINE SAVOLAINEN, ASSISTANT LAB COORDINATOR

Her duties include: Assisting John Parks in all things lab and the Poll Everywhere Specialist.



What is one piece of advice you would give students in your class?

Start reviewing your notes early, and come prepared to actively participate in class. Find a couple of people in class to talk Biology with, this will greatly improve your understanding of the material and cultivate enthusiasm for the topics at hand!

What is your all-time favorite Biology subject?

Varied trapping mechanisms of carnivorous plants

What do you think is the hardest part of the class?

Keeping up with the material and preparation for the academic rigor of a Biology Intro course at a world class university.

What is your favorite lab?

Experimental Design and Critical Thinking (the termite lab) AND Biodiversity and Ecosystems Functions

SHAWN BEHLING, FIELD TRIP COORDINATOR

Her duties include: Planning and coordinating all the Bio 180 field trips.



What is one piece of advice you would give students in your class?

The best way to discover gaps in your knowledge is to try to explain an idea to your peers. Don't study in a vacuum!

What is your favorite part of the class?

My heart skips a beat when students make connections to lab or lecture when we are out on a field trip.

What do you think is the hardest part of the class?

Reading the material and attending lecture is only one step in your learning process - making connections between ideas is when learning is at its best. Budgeting enough time to allow those thoughts to form bridges is worth the struggles!

All time favorite Biology subject?

Plant ecophysiology! Are you able to withstand changes in weather, hydration needs, nutritional requirements, and ward off evil-doers, all while be rooted to a single point in the earth? No? Well, plants do, and they do it with *style*.

AVAILABLE for the INTRO SERIES: TA hours in HCK 302.

Bio 180 TAs are there FIVE DAYS A WEEK. Check for the hours on the bulletin board outside HCK 302.

FREE TRIBETA TUTORING UW Intro Biology Series 180, 200 & 220: starts the week of Oct 7

The secret to excelling in Biology 180, 200, and 220 is discussing course content with others and asking questions to make sure that you fully understand new concepts. This is where TriBeta can help! TriBeta Tutors are students who have taken the full 180-220 series, been successful, and enjoy teaching. They can help you with course material & concepts, study habits, and test preparation!

The study lounge also provides FREE snacks during tutoring hours. Take advantage of this opportunity by dropping by the Study Lounge on the 4th Floor in Hitchcock.

We are here to help you Monday – Thursday from 3:30-6:30 p.m., no appointment necessary.

You can work with other Intro Biology students, or receive individualized help from our tutors who are always eager to help you understand. The lounge is located right above the HCK 3rd floor entrance. If you have any questions, or have completed the series and are interested in tutoring, please contact **Hank Cheng** at tribetatutoring@gmail.com.





TriBeta Biological Honor Society

2019-2020 Executive Board

President, MARLOWE KELLER.....mkeller4@uw.edu
VP of Tutoring, HANK CHENGyhhc@uw.edu
Vice President, AMANDA GARDINER.....amandamg@uw.edu
Vice President, FANQI (AMY) SHI.....fs36@uw.edu
Vice President, LISA YOUNGlisa1090@uw.edu
Adviser, BRIAN BUCHWITZ.....bjb@uw.edu

Full Membership is eligible to **any** student who has completed two Intro Biology courses (180/200) and one additional biology course with a GPA of 3.0 or higher.

WHAT IS TRIBETA?

Beta Beta Beta is a national honor society dedicated to improving the understanding and appreciation of biological studies. It is a platform for students to earn recognition for their efforts and accomplishments while networking with other students and UW Biology staff with the same interests.

In short: a really great organization.

TUTORING

TriBeta offers free tutoring for the Intro Biology series (180/200/220).

Tutors are available for drop-in tutoring in the Hitchcock 4th floor lounge:
**Monday to Thursday
3:30 pm–6:30 pm**

TRIBETA STUDY NIGHT will be December 5, 2019



—A Tribeta and Biology Club Event—

Halloween Pumpkin Carving

Thursday October 24 at 4:30pm to 6:00

Free & open to everyone. Third floor atrium of Hitchcock.



BIOLOGY APPAREL DAY The first wed of every month, get a treat and enter for a prize!

Biology Apparel Day happens the first Wednesday of every month.

If you are wearing Biology Apparel on a first Wednesday of the month throughout the year, you can come to Hitchcock Room 318 (Advising), to receive a sweet treat AND an opportunity to submit your name for a chance at a grand prize.

The Tribeta Biological Honor Society started up T-shirt contests as another way for Biology students, staff, and faculty to support Tribeta and Biology Club and of course, show our UW Biology pride! Your T-shirt purchase supports Tribeta and events put on for Biology Club members, like tutoring for the introductory biology courses, the annual Halloween party, and their Spring BBQ.

T-shirts are \$20 dollars cash or check. You can purchase them on T-shirt day in the atrium of Hitchcock Hall. You can contact tribeta@u.washington.edu with any questions!

Biology Apparel Wednesdays in Autumn Quarter are Oct 2, Nov 6, and Dec 4.



Mr Toad is wearing the 2019 t-shirt contest winner.

PEACE CORP Looking for adventure using Biology and making a difference in the world too?



Peace
Corps



Peace Corps is Now Accepting Applications!

Applicants with a degree in Biology could qualify for the following positions:

Secondary Education Science Teacher, Cameroon

Junior High School Science Teacher, Ghana

Community Environment Promoter, Paraguay

Natural Resource Conservation Volunteer, Mexico

Youth & HIV/AIDS Capacity Building – Life Skills Educator,
Botswana

Water, Sanitation and Hygiene (WASH) and Nutrition
Facilitator, Vanuatu
and many more!

Qualification also depends on relevant experience. Questions? Interested? Contact UW campus recruiter Claire Mocha at pcorps@uw.edu and find out more at peacecorps.gov



Who is in Hitchcock 302?

Staff: Gretchen Shirley-Bellande, Ben Wiggins, & Jeannette Takashima

What time is the room open? Hours: 9am to 5pm Monday - Friday

Where is Hitchcock 302?

One door past the Undergraduate Advising Office. Don't let the name fool you, we do so much more than help classes run smoothly behind the scenes. Our office is the main place to find TA office hours for several of the Biology department's undergraduate courses .

When the TA office hours might be in HCK 302?

We have you covered. Outside our office door is a color coded weekly schedule with the hours TAs can be found in the room. Sometimes there are minor changes throughout the quarter but we keep that schedule up to date, as best we can. If you notice something off just let us know.

How do you find your TA?

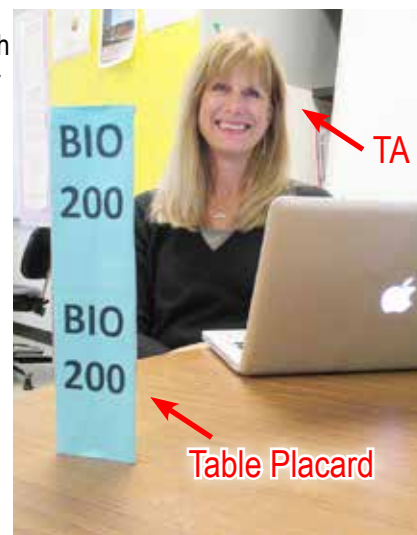
Once you are in the room just look for the table placard with your courses number on it, these placards should match or be a similar color to, the markers on the schedule outside our office.

Do I have to be with or waiting for a TA to study in HCK 302?

Absolutely not, though we sometimes get crowded close to exam time, we always welcome you to study here during our open hours. We have five separate tables, each near its own whiteboard for you to use. We also have sunlights at several tables to help during those darker months.

Can I pickup exams here?

Yes you can; we usually have final exams from the previous quarter for you to pickup with a photo ID. We keep exams until the end of the following quarter, so you have plenty of time to come pick yours up. See the photo below: the exam pickup sign is circled in red.



UNDERGRADUATE ADVISING Hitchcock Hall rm 318 Office: 8 am to 4:30 pm

Walk-in Hours Advising M, T, W, F: 9:00 am–12:00 pm, 1:00 pm– 4:00 pm

Walk-in Hours Advising Thursdays: 9:00 am–12:00 pm, 1:30 pm– 4:00 pm

Advisors: Janet Germeraad, Jason Patterson, Sheryl Medrano

Staff: Julie Martinez

General Phone: 206-543-9120

Email: bioedu@uw.edu

Website: <https://www.biology.washington.edu/programs/undergraduate>



We welcome UW and prospective UW students to contact us with any questions regarding an option in Biology.



Advisors: Jason Patterson, Sheryl Medrano & Janet Germeraad. Staff: Julie Martinez.

The Biology Advising Office is one of the most helpful places you will encounter through your journey in the Biology department. Our advisors are here to give you advice and help you navigate the Biology program no matter which of our programs you choose.

One of the best parts is that you do not have to be a Biology major to meet with one of our advisors. Even if you are just thinking about becoming a major feel free to stop by or make an appointment.

One thing to note is that during the weeks of registration no appointments can be made. Walk-ins will be the only way to meet one-on-one. So make sure to set up your advising appointment early and beat the rush.

Are you participating in Biology Apparel Day? (the first wed of the month: **Oct 2, Nov 6 and Dec 4**)

Visit Hitchcock 318 to get a sweet treat if you are wearing biology apparel and enter your name in a drawing for a prize. There will be a set-up on the cabinets for you to enter your name and a bowl of candy to pick out your favorite treat.



**OCT 2, NOV 6
AND DEC 4**

**GO TO HCK 318 FOR A TREAT
IF WEARING BIO APPAREL**

NINE NEW GRADUATES 2019 Welcome to the Department of Biology!

EVAN CRAIGin the lab of Alex Paradez
HAYDEN DAVIS.....in the lab of Adam Leaché
ROBIN FALESin the lab Jennifer Ruesink
NATHAN GRASSI.....in the lab of Alex Paradez
NATALIA GUAYAZAN PALACIOS ..in the lab of Adam Steinbrenner
ANDY HEMPTON.....in the lab of Takato Imazumi
ADAMIRIS MUNZ TIRADO.....in the lab of Ben Kerr
ELENA STILESin the lab of Caroline Strömberg
SIMRA ZAHID in the labs of Veronica di Stilio & Takato Imazumi



BIOLOGY AWARDS AND SCHOLARSHIPS FOR FALL 2019 Now open for applications



We are projecting \$380,000 in awards for the annual year 2019-2020.

More information can be found at the website:

<https://www.biology.washington.edu/programs/undergraduate/awards?>

UNDERGRADUATES AWARDS

Both scholarships (tuition support) and research awards are available for Fall 2019.

Famer Scholarship, Riehl Scholarship, Biology Scholarship, Fry-Hotson-Rigg Award, Sudarsky Memorial Internship, Franco Award, Casey Leadership, Porath-Johnson Scholarship, Sargent Award

Applications and recommendations are due by Wednesday, November 6 at 5:00pm.

GRADUATE AWARDS

Frye-Hotson-Rigg Fellowship, Hall International Fellowship, Hahn Writing Fellowship, Melinda Denton Writing Fellowship, Robin Harris Award (tuition support), Tunncliffe Fellowship are available this cycle.

Research awards, including research assistantships and the WRF-Hall, will be available in Winter 2020.

Applications and recommendations are due by Wednesday, October 16 at 5:00pm.

POSTDOC AWARDS

Postdoc awards will be available in Winter 2020.

Winter 2020 awards open January 8, 2020

GOLDWATER SCHOLARSHIP For sophomores & juniors planning careers in STEM research

The BARRY GOLDWATER SCHOLARSHIP is designed to attract outstanding students into research careers in mathematics, the natural sciences, and engineering. Scholarships are awarded on the basis of merit to students who are sophomores or juniors during the current academic year and who have excellent academic records and demonstrated interest in and potential for research careers in mathematics, the natural sciences, or engineering. The scholarship covers undergraduate eligible expenses for tuition, fees, books, and room and board to a maximum of \$7,500 per academic year.

UW DEADLINE to apply: November 12, 2019. Apply at <https://expo.uw.edu/expo/apply/559>.

Please find additional UW application details at <http://expd.uw.edu/expo/scholarships/goldwater> and on the official Goldwater website at <https://goldwater.scholarsapply.org/>.

ELIGIBILITY

To be considered for nomination, a student must:

- Be a full-time matriculated sophomore or junior pursuing a degree at an accredited 2- or 4-year institution of higher education during the 2019-2020 academic year,
- Intend to pursue a research career in a natural science, mathematics, or engineering (for a complete list of fields, see <https://goldwater.scholarsapply.org/eligibility/>),
- Have a college grade point average of at least a 3.00 on a 4.00 scale (GPA above 3.5 highly recommended)
- Be a U.S. citizen from the 50 states or the District of Columbia; a U.S. national for those students nominated by institutions in Puerto Rico, Guam, Virgin Islands, American Samoa, and Commonwealth of the Northern Mariana Islands; or a permanent resident.
- Be nominated by their college or university. UW is able to nominate up to 5 students to compete for this national award, including at least one community college transfer student!

NOTE: To be competitive for nomination at UW, students are recommended to have a minimum of three quarters of research experience and a minimum GPA of 3.5.

UW INFORMATION SESSION

Attend an information session to learn more about eligibility and suitability for this competitive scholarship program, information about the campus application and nomination process, and assistance students will receive if selected as campus nominees. Please RSVP at: <https://expo.uw.edu/expo/rsvp/event/241>.

- Tuesday, October 22, 2019, 5:30-6:30 pm, MGH 171 or online

BURKE MUSEUM Grand opening weekend Oct 12-14, free festival in the outdoor Burke yard

GO SEE THE NEW BURKE!

Get tickets for timed entry at the grand opening October 12-14 at Burkemuseum.org. UW Students, uw faculty, and staff are FREE with your Husky card but you still have to reserve tickets.

Inside the museum, the glass walls of the working labs will let you see the activities going on inside; you will see many one-of-a-kind objects located all around you, and the galleries are filled with wonderful displays to explore. It's a new kind of museum— and a whole new way to experiend our world.

During grand opening weekend, the new Burke yard (outdoor space) will also be transformed into a festival with multicultural music and dance performances, family-friendly activities, and food trucks.

It is also the grand opening of the new Off the Rez café! Enjoy tasty fry bread and other Native foods in Off the Rez's first brick-and-mortar location.

The photo on the right is of the Fossils Uncoverd Gallery up on the third floor of the museum with Archaeology, Contemporary Culture and Paleontology. In the gallery, the tops of the trees show through the windows giving the illusion the displays are walking outside and you can imagine how they fit in to the real world.



Mystery Plant: Guess & win an 8 card set of flowering plants at the Medicinal Herb Garden!

This is the autumn quarter mystery plant and this plant is blooming right now in the Medicinal Herb Garden. Submit your best guess with your name and email into our Mystery Flower Box located within the third floor Atrium of Hitchcock Hall.

After December 2nd, we will draw a name for the prize of a special, limited edition set of eight Biology note cards featuring flowers blooming Autumn Quarter in the Medicinal Herb Garden (off Stevens Way).

The cards will be displayed in HCK 302 before then.

GUESS:

- 1) What is one of the common names for this plant?
- 2) Name at least one ailment that today is still commonly treated with the tea of this plant?

HINTS:

1. The Aztecs in central Mexico used this plant for medicinal purposes, cooking and in rituals. The Aztecs called it Yahutli.
2. It has entered the nursery trade in North America as a tarragon substitute.
3. A pleasant anise-flavored tea is brewed using dried leaves and flowerheads. This is primarily used medicinally in Mexico and Central America.



This mystery plant is currently blooming in the Medicinal Herb Garden.

BIOLOGY STUDY AREA (aka BSA) All students are welcome in Hitchcock 220

All students are welcome — not just Biology majors!

The BSA is open Monday - Friday 8:00 am - 5:00 pm

The Biology Study Area (BSA) is a GREAT place to study with other students, use computers, or just to read.

Dave Hurley manages the BSA and can even answer your biology questions.

If you forgot your textbook, you can check out one from the BSA staff, if they have a copy.

The BSA has 23 computers for general use and a Dawg-Print printer.

Phillip Park, Lyudmila Polevoy, and Jessica Nguyen will be staffing the BSA.



Mr Grass Hopper is typing up his research work on one of the computers in the Biology Study Area. He thinks the three support staff are awesome.



On this wall of the BSA is a display of Odonata of Washington state.

On three walls of the BSA are wonderful collection displays to look at and learn.

The one seen in the photo to the left is of Odonata of Washington State (commonly known as dragonflies and damselflies).

The wall opposite of this, the display is of Butterflies of Washington. And third, is a two part display of Wing Shape & Flight and Wing Coloration.

Be sure to take a look at them when you are there. You will then realize how lucky we are to have these collections on display, courtesy of the Burke Museum.

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