

## Welcome to BISP 195!

These courses deal with learning and teaching of biology in the college classroom. Weekly seminars include interactive discussions on the science of learning and evidence of effective teaching. We will explore issues such as professional ethics, constructivist learning, and equity and inclusion as they apply to biology education. These courses also involve participation in apprentice teaching under mentorship of faculty.

Instructor:	Stanley Lo   <a href="mailto:sml@ucsd.edu">sml@ucsd.edu</a>
Office hours:	By appointment
Course website:	Canvas
Class meetings:	Tuesday 12:30–1:50 pm   Bonner 2130 Tuesday 2:00–3:20 pm   Bonner 2130 Tuesday 5:00–6:20 pm   Pacific Hall 3500

## Learning goals

- Recognize the value of learning communities and how they influence student learning
- Apply strategies and issues of establishing learning communities comprising diverse groups of learners
- Recognize the value diversity in development of teaching plans to foster learning
- Engage in evidence-based teaching practices and describe how they promote an inclusive classroom
- Reflect on our own practices to enhance our understanding of teaching and learning

## Course structure

In addition to apprentice teaching, BISP 195 are organized around weekly seminar class sessions. We will engage in interactive activities to explore issues in biology education while simultaneously learn different methodologies of teaching. In the earlier weeks, we will discuss important issues using a variety of practical methodologies that can be immediately implemented in discussion and laboratory sections. In later weeks, we will develop deeper understanding of learning and teaching.

Everyone plays a critical role in learning from one another's knowledge and experiences. Active contribution is essential because many ideas that will be developed during discussions cannot be easily captured by make-up assignments. Contribution is different from attendance or participation. Attendance means being physically present. Participation means having completed the required activities. Contribution involves attendance, participation, and active mental engagement that ultimately results in learning. We are expected to contribute fully in interactive activities, which include active listening and respectful conversations. As part of our mutual responsibility, we will begin promptly each week.

## Course requirements

**Apprentice teaching:** A majority of the activities in BISP 195 is apprentice teaching. This involves collaborating and working with faculty and fellow instructional assistants in helping students learn and succeed in courses. Specific responsibilities will vary in individual courses. To support these apprentice teaching activities, we have the following components that explore foundational and cross-cutting ideas related to learning and teaching in biological sciences.

**Writing assignments:** Each week, a short reflection is due on Canvas by Sunday at 11:59 pm. The assignment will focus on what teaching practices each student observed and/or implemented in their role as instructional assistants in the preceding week, how such observations and/or implementations are connected with BISP 195 course materials and class discussions, and how they might consider improvements both theoretically and empirically (as applicable) in the future. The short assignments will be uploaded on Canvas.

### Grading

This course employs a mastery performance framework whereby course requirements are scored as target or unacceptable. Feedback can be requested for all work for improvement and learning. Each student will engage in the course requirements. Final grades will be assigned based on the following guidelines:

- P** Target or satisfactory performance on all of the following:
- 1) Satisfactory apprentice teaching
  - 2) Active engagement and contribution in all weekly seminar class sessions
  - 3) On-time and target-level completion of writing assignments
- NP** Failure to complete any one of the criteria listed above

In general, we are unable to accept late or missing work. However, we acknowledge that emergencies do occur. If you have a short-term illness or serious family emergency, please contact the course instructor as soon as possible or reasonable to do so. We are here to help you be successful!

### Course schedule

- Week 1: Introduction to the college biology classroom
- Week 2: Professional ethics and learning cycles
- Week 3: Equity, diversity, and inclusion in the classroom
- Week 4: Science of learning and learning outcomes
- Week 5: Effective and inclusive collaborative learning

## Detailed weekly schedule

Week	Seminar topic	Learning outcomes
1	Introduction to the college biology classroom	<ul style="list-style-type: none"> <li>Identify common conceptions of teaching, and describe how they influence our practices</li> <li>Describe how an instructor's beliefs and biases can influence student learning and experience</li> <li>Describe strategies we can implement to promote students to acquire their own knowledge (a learning-focused classroom)</li> </ul>
2	Professional ethics and learning cycles	<ul style="list-style-type: none"> <li>Describe what students can do to uphold academic integrity</li> <li>Describe what you as instructional assistants can do to uphold academic integrity</li> <li>Explain strategies to handle potential violations of integrity</li> <li>Discuss strategies to handle inappropriate conduct</li> <li>Explain the 5E learning cycle and how it can be used to facilitate student learning</li> </ul>
3	Equity, diversity, and inclusion in the classroom	<ul style="list-style-type: none"> <li>Recognize that both internal and external identities contribute to diversity in your class</li> <li>Discuss and predict how stereotypes can affect the performance of your students</li> <li>Identify how instructor and student mindset can affect student learning</li> </ul>
4	Science of learning and learning outcomes	<ul style="list-style-type: none"> <li>Explain the differences between constructivist and transmissionist frameworks of learning</li> <li>Identify how experts and novices may differ in their approach to solving problems</li> <li>Identify knowledge and cognitive actions required for students to achieve course goals</li> <li>Align activities with course goals</li> </ul>
5	Effective and inclusive collaborative learning	<ul style="list-style-type: none"> <li>Describe scope of diversity in learning environments</li> <li>Describe impact of diversity on student learning</li> <li>Describe what can we do to promote productive small-group discussions and collaborative learning</li> </ul>

**Academic integrity** | Website: <https://academicintegrity.ucsd.edu/>

Integrity of scholarship is essential for an academic learning community. In this course and at the university, we expect that both students and the instructional team will honor this principle and in so doing protect the validity of our intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind. The instructional team will exercise care in planning and collaborating with students on academic work.

When people collaborate to work toward a common goal, shared values must be established so that everyone understands the acceptable ways for working together. In this course, we are using a statement of values to describe the behaviors for maintaining and protecting these values. The statement is open to discussions and possible alterations based on mutual agreements among all students and the instructional team. In collaborative work, each team should discuss these values and agree on mutual expectations.

The following course statement of values is adapted from the Academic Integrity Office:

	As students, we will ...	As the instructional team, we will ...
Honesty	<ul style="list-style-type: none"> <li>Honestly demonstrate knowledge and abilities according to expectations</li> <li>Communicate without using deception, e.g. citing appropriate sources</li> </ul>	<ul style="list-style-type: none"> <li>Give honest feedback</li> <li>Communicate honestly about expectations and standards through the syllabus and course materials</li> </ul>
Responsibility	<ul style="list-style-type: none"> <li>Complete assignments on time</li> <li>Be on time and fully contribute to team learning and activities</li> </ul>	<ul style="list-style-type: none"> <li>Give timely feedback</li> <li>Be on time and mentally present</li> <li>Create relevant activities for learning</li> </ul>
Respect	<ul style="list-style-type: none"> <li>Speak openly with one another while respecting diverse perspectives</li> <li>Provide sufficient space for others</li> </ul>	<ul style="list-style-type: none"> <li>Respect different perspectives</li> <li>Help facilitate respectful exchanges</li> </ul>
Fairness	<ul style="list-style-type: none"> <li>Contribute fully and equally to collaborative work</li> <li>Not seek unfair advantage</li> </ul>	<ul style="list-style-type: none"> <li>Create fair assignments and exams and grade them in a fair and timely manner</li> <li>Treat all students and teams equally</li> </ul>
Trustworthiness	<ul style="list-style-type: none"> <li>Focus on relevant work while in class</li> <li>Not distribute course materials to others in an unauthorized fashion</li> </ul>	<ul style="list-style-type: none"> <li>Be available to all students when we say we will be</li> <li>Follow through on our promises</li> </ul>
Courage	<ul style="list-style-type: none"> <li>Say or do something when we see actions that undermine these values</li> <li>Accept consequences for upholding and protecting the above values</li> </ul>	<ul style="list-style-type: none"> <li>Say or do something when we see actions that undermine these values</li> <li>Accept consequences for upholding and protecting the above values</li> </ul>

All course materials are the property of the instructor, the course, and University of California San Diego and may not be posted online, submitted to private or public repositories, or distributed to unauthorized people outside of the course. Any suspected instances of a breach of academic integrity will be reported to the Academic Integrity Office for review.

**Principles of community** | Website: <https://ucsd.edu/about/principles.html>

Our campus is dedicated to learning, teaching, and serving society through education, research, and public service. Our international reputation for excellence is due in large part to the cooperative and entrepreneurial nature of the UC San Diego community. Faculty, staff, and students are encouraged to be creative and are rewarded for individual as well as collaborative achievements.

To foster the best possible working and learning environment, we strive to maintain a climate of fairness, cooperation, and professionalism. These principles of community are vital to the success of the University and the well-being of its constituents. Faculty, staff, and students are expected to practice these basic principles as individuals and in groups.

**Accessibility and inclusion** | Website: <http://disabilities.ucsd.edu> | Contact: [osd@ucsd.edu](mailto:osd@ucsd.edu)

Any student with a disability is welcome to contact us early in the quarter to work out reasonable accommodations to support their academic success. Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD). Students are required to discuss accommodation arrangements with the instructor and OSD liaisons in the program in advance of any exams or assignments.

Whenever possible, we will use universal designs that are inclusive. For example, colors used in this syllabus are distinguishable by most colorblind and non-colorblind people, and this font is designed to be dyslexic friendly. If you have feedback on how to make the course more accessible and inclusive, please get in touch!

**Discrimination and harassment** | Website: <http://ophd.ucsd.edu> | Contact: [ophd@ucsd.edu](mailto:ophd@ucsd.edu)

The Office for the Prevention of Harassment & Discrimination (OPHD) provides assistance to students, faculty, and staff regarding reports of bias, harassment, and discrimination. The mission of OPHD is to educate the entire UC San Diego community about these issues and to assist with the prevention and resolution of these issues in a fair and responsible manner. In collaboration with other UC San Diego resources, OPHD promotes an environment in which all members of the UC San Diego community can work, learn and live in an atmosphere free from all forms of bias, harassment and discrimination.

Students may feel more comfortable discussing their particular concern with a trusted employee, such as a student affairs staff member, faculty member, department chair, or other university official. These individuals have an obligation to report incidents of sexual violence and sexual harassment to OPHD. This does not necessarily mean that a formal complaint will be filed. If you find yourself in an uncomfortable situation, ask for help. Our campus is committed to upholding policies regarding discrimination and harassment.

## Campus Resources

If you are new to campus, check out the New Triton page: <https://newtriton.ucsd.edu/>

Academic Support	
<a href="#">Academic integrity</a>	Policy and strategies to excel with integrity
<a href="#">Geisel Library</a>	Research tools and eReserves
<a href="#">Learning strategies</a>	Metacognitive support to address learning challenges
<a href="#">Library guide</a>	Starting point for navigating campus library resources
<a href="#">REAL Portal</a>	Internships and other hands-on experiential learning opportunities
<a href="#">Student Success Coaching</a>	Peer mentor program with information, resources, and support
<a href="#">Technical support</a>	Assistance with accounts, network, and technical issues
<a href="#">Writing Hub</a>	Peer writing mentors and support to improve writing skills

Student resources	
<a href="#">Basic needs</a>	Access to food, housing, and financial resources
<a href="#">Counseling and Psychological Services (CAPS)</a>	Confidential counseling, consultations for psychiatric services, and mental health programming
<a href="#">Community centers</a>	Programs for students and resources toward a socially just campus
<a href="#">Equity, diversity, and inclusion</a>	Toward a campus climate of respect, fairness, and cooperation
<a href="#">Office for Students with Disabilities (OSD)</a>	Support for students with disabilities, including accessibility resources and reasonable accommodations
<a href="#">Triton Concern Line</a>	Support for students of concern at (858) 246-1111