

Catalogue Description

FISH 489 Peer Teaching Assistants in Aquatic and Fishery Sciences (1-5, max. 10)
Designed to prepare students for graduate and public school teaching by developing mentoring and communication skills through direct experience. Skills gained through attending lectures and weekly preparation sessions, directed discussions with faculty and TAs, and teaching course lab or discussion sections. Credit/no-credit only. Prerequisites: Instructor permission only. Offered: AWSp.

Syllabus

FISH 489 Peer Teaching Assistants in Aquatic and Fishery Sciences (1-5, max. 10)

Instructors vary, limited to FISH classes

Course description

The aim of this course is to develop and enhance teaching skills in the Aquatic and Fishery Sciences through direct teaching. Emphasis will be placed on clearly communicating novel concepts to learners, developing mentoring and time management skills, and understanding the basis and philosophies of student evaluation. Peer TAs will teach groups of learners in individual lab or discussion sections associated with a class. By the end of the class, students will be prepared for greater autonomy in teaching, and will develop a set of documents with their instructor intended to support their curriculum vitae.

Student learning goals

- Develop teaching experience by practicing teaching activities prepared by experienced teachers in supportive environments
- Understand lesson planning by developing teaching activities and sharing approaches with peers
- Advance skills in motivating and communicating with learners (rather than just “talking at” learners) through presentations, responding to student questions, individual interactions and by encouraging participation
- Gain an understanding of the breadth of ways that students learn, by responding to discussions and student writing, and evaluating performance
- Develop approaches to prioritization, time management and personnel management
- Understand ethics in teaching and the care for the integrity and confidentiality of learner data
- Develop a clear philosophical approach to teaching and learning through formal reflection

Method of instruction

All TAs will attend course lectures, to gain a firm understanding of subject matter and teaching approaches in lecture sessions. Additionally, TAs will meet weekly with faculty and graduate TAs to discuss approaches to disseminating information, discuss pedagogical examples arising from the TA sections, and explore best practices in teaching and learning.

Option 1: TA in a 4 or 5 credit lab-based class. Regular TA meetings with faculty and graduate TAs will be used to prepare and disseminate information essential for teaching the given lab. Preparation may include reading and discussing lab manuals, preparing short introductory talks, and discussing grading approaches.

Option 2: TA in a 4 or 5 credit discussion-based class. Regular TA meetings with faculty and graduate TAs will be used to disseminate material essential for leading the given discussion sections. Preparation may include collating reading materials, developing short talks to motivate discussion sections, and discussing grading approaches.

Recommended preparation

Varies depending upon the class in which the peer TA will teach, but typically involves reviewing lecture materials and associated course text and lab manuals. It is very helpful to have taken the class previously..

Grading.

Credit-no credit only. To attain the credits, students should:

- participate fully in all activities associated with teaching and learning in the class
- participate in a teaching review conducted and written by the class instructor
- develop a philosophy of teaching statement (with guidance from the class instructor), suitable for professional and graduate school applications.

Resources

An online website (Catalyst or Canvas) will be provided with supporting information on teaching resources, including links to the CIDR. A supporting reader will also be provided.

CIDR TA Handbook: <http://depts.washington.edu/cidrweb/TAHandbook/>

References in the reader:

Coppola B (2002) Writing a statement of teaching philosophy. *Journal of College Science Teaching*

aching **31**, 448-453.

Davis BG (2009) Discussion strategies. In: *Tools for Teaching* (ed. Davis BG), pp. 95-127. John Wiley and Sons, San Francisco, CA.

Davis BG (2009) Enhancing students' learning and motivation. In: *Tools for Teaching* (ed. Davis BG), pp. 257-298. John Wiley and Sons, San Francisco, CA.

Davis BG (2009) The teaching portfolio. In: *Tools for Teaching* (ed. Davis BG), pp. 481-488. John Wiley and Sons, San Francisco, CA.

Davis BG (2009) Testing and grading. In: *Tools for Teaching* (ed. Davis BG), pp. 343-419. John Wiley and Sons, San Francisco, CA.

Freeman S, Haak D, Wenderoth MP (2011) Increased course structure improves performance in introductory biology. *CBE-Life Sciences Education* **10**, 175-186.

Haak DC, HilleRisLambers J, Pitre E, Freemans S (2012) Increased structure and active learning reduce the achievement gap in introductory biology. *Science* **332**, 1213-1216.

Kolb AY, Kolb DA (2005) Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education* **4**, 193-212.

Luckie DB, Maleszewski JJ, Loznak SD, Krha M (2004) Infusion of collaborative inquiry throughout a biology curriculum increases student learning: a four-year study of "Teams and Streams". *Advances in Physiology Education* **28**, 199-209.

Nelson LP, Nelson RK, Tichenor L (2013) Understanding today's students: Entry-Level science student Involvement in academic dishonesty. *Journal of College Science Teaching* **42**, 52-57.

Slavich GM, Zimbardo PG (2012) Transformational Teaching: Theoretical Underpinnings, Basic Principles, and Core Methods. *Educational Psychology Review* **24**, 569-608.