

## Biology 5001: Topics in Biology Teaching Competencies

The following competencies provide a set of general tasks that instructors can do to help them become successful, well-rounded educators within their field of study.

### **A. Foundational: “What do teaching assistants need to do to be successful educators?”**

1. *Bring disciplinary knowledge into teaching:* Reflect on their disciplinary knowledge (includes content, skills, procedures, and metacognitive knowledge) as this applies to their teaching.
2. *Become part of the community:* Demonstrate an integrated understanding of themselves as ethical, collegial individuals, teachers, and scholars within their classrooms, departments, and disciplines.

### **B. Postsecondary: “What do teaching assistants need to understand about higher education to have successful careers as educators?”**

1. *Explore career choices:* Describe how they have explored and situated their practice and potential career choices within the contexts and cultures of postsecondary institutions.
2. *Review and discuss educational standards* (e.g. Vision & Change, National Science Education Standards, Common Core, etc.) and policies in postsecondary environments.

### **C. Pedagogical: “What do teaching assistants need to do to be successful teachers?”**

1. *Gain knowledge on how people learn and associated teaching techniques:* Discuss research on how people learn and apply this literature to teaching consistent with these principles of learning, using a variety of techniques appropriate for the discipline, level, and learning context.
2. *Set and communicate learning goals and expectations,* in their sample work for the course, both for individual class sessions and the overall course, that are appropriate for the discipline, level, learning context, and the institutional curriculum.
3. *Use inclusive teaching practices:* Demonstrate the ability to teach with attention to diversity, inclusion of multiple perspectives, and demographics so that every student has the opportunity to learn.
4. *Develop effective assessments in alignment with learning outcomes:* Design methods to assess student learning responsibly, equitably, and in alignment with learning goals, and use the results to enhance student learning.
5. *Apply discipline specific evidence-based teaching approaches:* Select evidence-based pedagogical approaches specific to the discipline and which facilitate student learning of disciplinary content.
6. *Reflect on teaching:* Devise and describe means to assess and improve their own teaching performance through inquiry-based practice informed by a community of scholarly teachers.

The original competencies have been modified from a document developed by the National Consortium for Graduate and Professional Student Teaching. These competencies have been included in the following presentations:

**Kalish, A., et al.** Designing a Competency-Based Approach to Graduate & Professional Student Development. Peer reviewed, pre-conference workshop presented at Pencils & Pixels: 21st Century Practices in Higher Education. 37th Annual POD Conference, Seattle, Washington, October 24-28, 2012. With Laura LB Border, Elizabeth O’Conner Chandler, Joaana Gilmore, Lauren Griffith, Steven Hansen, Katherine Dowell Kerns, S. Spencer Robinson, William Rando, and Linda von Hoene.

**Kalish, A. & Kearns, K.** Promoting scholarship with assessable curricula for graduate and professional students. presented at Freedom to Connect — Freedom to Risk — Freedom to Learn. 38th Annual POD Conference, Pittsburgh, Pennsylvania, November 6-10, 2013

**Kalish, A. & Hansen, S.** What Should They Know: Desired Teaching Competencies for New PhDs Evidence Based Learning and Teaching: 33rd Annual Lilly Conference. Miami University: Oxford, OH. November 21-24, 2013.