Scientists Teaching Science Online Summer Course  
6/6/2016 to 8/14/2016

Agenda

Course opens unofficially 5/30/2016

- **Week One: 6/6/2016**
  - Active Learning and Expert Learners: discussion of learning styles; assigned readings on current research findings about teaching and learning. Assignments: personal essay on teaching experience; discussion board posts.

- **Week Two: 6/13/2016**
  - Learning Environments and Assessments: discussion on rigor and improving academic outcomes in higher education; assigned readings on improving student outcomes. Assignments: first draft of Teaching Philosophy Statement; discussion board posts.

- **Week Three: 6/20/2016**
  - Cultural Awareness and Diversity: discrimination and bias in teaching; assigned readings about experiencing bias in science careers; inclusive classrooms; discussion about experiencing and handling bias/discrimination. Assignment: discussion board post.

- **Week Four: 6/27/2016**
  - Inquiry-Based Science Education: differences between traditional laboratory activities and inquiry-based investigations; assigned readings on inquiry-based teaching in a college biology class. Assignments: NONE.

- **Break (July 4 – July 10)**

- **Week Five: 7/11/2016**
  - Writing Course Objectives: Bloom’s Taxonomy and student learning objectives; assigned readings about writing learning objectives. Assignments: discussion board posts; 10 learning objectives for a proposed class.

- **Week Six: 7/18/2016**
  - Creating Valid Assessments & Alternative Assessments: using rubrics and test blueprints; effective multiple choice and essay questions; designing and evaluating students without using tests for small and large classes; assigned readings on how to write valid assessment items. Assignment: 5 sample test questions based on previous objectives.

- **Week Seven: 7/25/2016**
  - Teaching Online: teaching and learning online; challenges, advantages, and common mistakes; course management systems; engaging students. Assignment: online quiz.
• **Week Eight: 8/1/2016**
  - **Elements of Curriculum Design**: instruction on the steps involved in designing an entire course, a training session, or a single lesson. **Assignment**: final copy of Teaching Philosophy Statement to include educational theories/strategies from course.

• **Week Nine: 8/8/2016**
  - **Writing a Syllabus & Reflections on Teaching**: purpose of a syllabus; legal requirements of teaching; student/academic honor codes; student study habits; assigned reading on plagiarism and the purpose of a syllabus. **Assignment**: model syllabus.

- Additional requirements include assigned readings and participation in **ONE 45 minute live, online discussion**. The instructor will schedule several sessions of live, online discussions and ask you to attend **one** of these over the course of the class.