



American Physiological Society Frontiers in Physiology

www.frontiersinphys.org



Online Teacher Professional Development Course

In this year-long, online teacher professional development course for middle and high school science teachers, participants will explore, apply, and reflect on Six Star Science, a research-based framework for supporting excellence in science education. Teacher fellows will also engage in online discussions, and utilize tools and strategies to enhance student-centered learning by effectively transforming lessons. Teacher fellows will attend and be honored at the APS' annual scientific meeting, *Experimental Biology*, in Washington, DC in April 2011.

Deadline for applying is February 1, 2010.

Online Program Information and Application: www.frontiersinphys.org

COURSE OBJECTIVES

After completing this program, you will be able to:

- Integrate student-centered inquiry into your lessons and teaching.
- Address equity and learning styles among diverse students.
- Incorporate technology and Internet-based resources to enhance student learning.
- Create authentic assessments that focus on both content and process skills.
- Enhance your classroom labs with a better understanding of the scientific research process.
- Identify and utilize accurate and timely content information
- Productively reflect on teaching and learning.
- Transform traditional cookbook labs into engaging, effective Six Star Science lessons that are aligned to your state standards.
- Access and utilize toolkits of strategies and resources for enhancing your teaching.

The new Online Teacher Professional Development (OTPD) Program especially invites teachers working in rural areas, school systems with limited resources, and primarily minority schools to apply. Space is limited. If space is available after the February 1 deadline, decisions will be made on a rolling-admissions basis.

PROGRAM ACTIVITIES

See the [tentative program schedule](http://www.frontiersinphys.org/pages/page01o.shtml): <http://www.frontiersinphys.org/pages/page01o.shtml> that outlines the topics and schedule of the online course. Eleven lessons spread over the program year address Six Star Science, understanding the research process, and transforming a lab. A total of \$3500 will be paid over the course of the year to teacher fellows for completing the online course assignments/activities and travel expenses.

The following is a general overview for participant responsibilities. Upon notification of acceptance into the online program in March 2010, further details will be described in the Award Notification Packages and the Letters of Agreement.

PARTICIPANT RESPONSIBILITIES/REQUIREMENTS

1. Secure Internet access and an email address that I will frequently check (weekly, at a minimum) to receive pertinent program information, and correspond with the APS Education Office staff.
2. Complete pre- and post-program surveys for evaluation purposes.
3. Complete eleven (11) online assignments by the stated deadlines. These assignments include online reflections, readings, hands-on activities, and "Transform a Cookbook Lab" curriculum development projects. See the [tentative program schedule: http://www.frontiersinphys.org/pages/page01o.shtml](http://www.frontiersinphys.org/pages/page01o.shtml).
4. Participate in online discussions on assignments with fellow teachers.
5. Attend the Experimental Biology (EB) meeting, April 9-13, 2011, in Washington, DC. I understand that APS will reimburse my travel costs for this meeting (up to \$1,200).
6. Provide an opportunity for the program's external evaluator to observe me in my classroom (if asked) and/or interview me. I understand that the role of the evaluator is to assess the impact of the program, not to evaluate my teaching.
7. Notify the APS should I be unable to complete the online program according to the stated timeline.

APS RESPONSIBILITIES

1. Provide you with guidelines and information for preparing all required and requested materials, including your classroom activity and attending the EB 2011 meeting.
2. Provide you with a \$2,000 total payment for assignments:
 - a. \$1800 for completion of the 11 online assignments
 - i. \$400, Lessons 1-4
 - ii. \$400, Lessons 5-8
 - iii. \$600, Lesson 9 (final transformed lesson/activity)
 - iv. \$400, Lessons 10-11
 - b. \$200 for completion of the program evaluation activities.
3. Award an additional \$300 for classroom materials if you apply for a Classroom Mini-Grant.
4. Reimburse you with up to \$1200 in allowable travel expenses to attend the EB 2011 meeting.
5. Develop a program of activities for teachers during the EB 2011 meeting, including a luncheon honoring the participants of the Online Teacher Professional Development Program.
6. Make available teacher mentors and an APS member physiologist who are previous program participants to provide feedback and advice during your online program
7. Publish your transformed activity in the 2011 edition of *APS Works in Progress: Activities for Teachers*, pending review.

HISTORY AND SPONSORSHIP

This new Online Teacher Professional Development program expands upon the APS Frontiers in Physiology Professional Development Fellowship for science teachers that included a live summer research experience and a summer workshop week. The OTPD Program is sponsored by the APS and a Science Education Partnership Award from the National Center for Research Resources at the National Institutes of Health (Grant #RR025127).

QUESTIONS

For program information and accessing the online application, visit: www.frontiersinphys.org. For any other questions, please contact the APS K-12 Education Programs Coordinator, Mel Limson: mlimson@the-aps.org.

Testimonials from past Teacher Fellows about the Frontiers in Physiology program:

On the fellowship experience from Diana DeSpain (2002, Oklahoma): *"Enjoy every minute of the fellowship experience because it goes by so fast. You are so absorbed in the material and assignments that it will take you a year just to compress and reflect on it all. So soak it up, relax, and enjoy the incredible journey that the APS will take you on!"*

A reflection on assignments from Kris Clements (2000, Louisiana): *"Enjoy the assignments! They made me think about my teaching more than I had done in years. I still go back and read them to monitor my teaching and where I wish to go with it."*

A reflection on the beginning of the program from Shelley Epperson (2002, Illinois): *"I remember being so excited about receiving the award, and then really worried about whether I could handle the extra work load. As the online assignments started up, I really felt panicky about it all. Had I just read through everything as soon as it arrived and gotten to the online portion sooner, I could have eased my mind. It was clear that although work was involved, the amount of work and the time it would take to complete it was completely blown out of proportion by my worrying about it! Also, whenever I was really stumped by anything, all of you at APS gave such great advice and reassurance!"*