

The University of Pennsylvania
Biology Undergraduate Newsletter

Volume 15, Number 4

Published by the Biology Department Academic Office

November 5, 2004

Biology Course Announcements

BIOL 150: Learning Biology by Teaching Biology in an Urban High School

Teach a series of hands-on activities to students in biology classes at West Philadelphia High School. Each Monday 1-3, you will learn the relevant biology background and techniques for one or two hands-on activities. On Wednesday and/or Friday, you will teach these activities to small groups of high school students. Teaching sections are WF 9-11:30 (section 101) or WF 12:40-3:10 (section 102). Because of schedule conflicts between Penn and West Philadelphia High, we will meet at the high school on approximately half of the scheduled meeting days. Activity topics include microbiology, genetics, plant and animal anatomy, physiology and evolution. For more information, contact Jennifer Doherty dohertyj@sas.upenn.edu.

Prerequisite: One semester of college biology or AP credit.

This course does not count toward the Biology major. Instructors: Dr. Ingrid Waldron and Jennifer Doherty

BIOL 202: Cellular Biology and Biochemistry

Formerly offered only in the fall, BIOL 202 will be offered both Fall and Spring semesters beginning this year.

Taught by Dr. Guo and Dr. Roos

Tuesday and Thursday, 10:30 – noon

BIOL 409: Physiology of Psychosocial and Nutritional Influences on Health

This course investigates the influences of environmental factors, including nutrition and psychosocial factors, on human health and disease. Instructor's permission required for registration. Pick up an application form in the Academic office (Leidy 102) or e-mail Dr. Waldron (iwaldron@sas.upenn.edu).

Prerequisite: BIOL 102 or 122 or 091

Taught by Dr. Waldron

Tuesday and Thursday, 12 – 1:30 pm.

BIOL 423: Plant Ecology

Learn about plant population and community ecology by discussing experimental methods, analyzing published data and conducting a group research project in the department's greenhouse. This course is **not offered every year** so don't miss this opportunity!

Prerequisite: one year of introductory biology

Taught by Dr. Casper

Monday, Wednesday and Friday, 1-2 pm.

BIOL 465: Ecological Techniques in Conservation Biology

Taught by Dr. William McShea at the Smithsonian Institution's Conservation and Research Center (CRC), adjacent to Shenandoah National Park, Front Royal, VA, over Spring break (March 5 – 13).

The CRC operates captive breeding programs for globally endangered wildlife and is engaged in a major study to examine the effects of deer, an overpopulated key herbivore, on a forest ecosystem. This course offers a rare opportunity to gain hands-on experience in many techniques commonly used in conservation biology. Students will learn practical methods to study and manage real populations of wildlife. Emphasis is placed on populations of small mammals, forest birds and white-tailed deer as well as their respective habitats. Activities require hiking and other strenuous activities in all weather conditions.

NEW COURSE!

BIOL 484: Cell Motility and Cytoskeleton

This seminar course will examine the importance of the cytoskeleton and cell motility to the physiology of cells, tissues and whole organisms. Current topics in cell biology from relevant journals will be discussed with reference to the role of cell motility and the cytoskeleton.

Prerequisite: BIOL 202

Taught by Dr. Svitkina

Monday and Wednesday, 3 – 4:30 pm.

BIOL 540: Genetic Systems

Investigate the genetics of several experimental models including mice, *Drosophila* and *Arabidopsis* and learn the various techniques used to study the actions of genes in these organisms.

Prerequisite: BIOL 221

Taught by Dr. Poethig

Tuesday and Thursday, 10:30 – noon

BIOL 571: Proteomics

The course will be concerned with recent developments in the identification and characterization of proteins using high-sensitivity, high-resolution mass spectrometric techniques and/or protein chip technology. Working from the original literature emphasis will be placed, in what is now the functional genomic, systems approach, era, on how this technology has given rise to and sustains proteomics, from the study of single molecules to the spatial and temporal definition of the total protein complement, the 'proteome', of a cell.

Directed by Dr. Rea (Plant Biochemistry) with guest lecturers

Tuesdays, 4-7 pm.

A complete roster of Biology classes is available on the Registrar web page <http://www.upenn.edu/registrar/register/index.html> and in Leidy Lab, Room 102.

Courses of Interest in Other Departments

CLST 135: The Art of Argument and Persuasive Speaking

This course is designed to help students become more effective and critical speakers in order to prepare them to serve as paid speaking advisors in Penn's Communication within the Curriculum (CWiC) program. Students will analyze and discuss a variety of speaking styles, prepare and deliver addresses in various forms and contexts, and explore how to become constructive critics for other undergraduate speakers. Because students who take CLST 135 are both students and advisors-in-training, only those who are serious about taking on that responsibility and who show potential for that work will be admitted. Interested students should submit a one-page writing sample discussing their interest, a resume (be sure to include all activities related to speaking or teaching), and a transcript (from Penn In Touch). Submit paper copies of your materials to the instructor's mailbox in 120 Logan Hall as soon as possible, but no later than Nov. 12. If you are interested, do not let the application procedure deter you. [Note: Dr. Greg Guild is impressed with the work done by CWiC and would be happy to speak with anyone interested in more information.]

The ABCs of Neuroscience is a new academically based community service course offered by BBB this Spring. Students will work with Sayre High School students to develop educational activities for a reverse science fair. The class will meet once each week at Penn to brainstorm, develop and evaluate projects. A second class meeting each week will be held at the high school, helping students learn neuroscience. Contact Katie Schu, kschu@sas.upenn.edu for more information.

Advanced Placement Exams

AP exams for Biol 101, 102, and 121 will be given on **Thursday, January 13 at 4 pm**, in Leidy Lab, room 10. A passing score on an AP exam earns students 1 c.u. for the lecture portion of the corresponding course. If you don't pass an AP exam, it will not be recorded on your academic record, and you can take the exam(s) again. Contact the Academic Office to sign up by **3 pm, Wednesday, January 12**, if you want to take any of the AP exams. *Don't forget to bring your photo ID to the exam.*

Research Opportunities

The Program for Research on Religion in Urban Civil Society of SAS is seeking proposals for undergraduate research projects in religion and society, especially projects concerning religion and the natural sciences. Students may request funds for travel, materials or other research-related expenses. Applications will be accepted beginning 1 November 2004. Visit their website at <http://www.sas.upenn.edu/prruc> for more information.

University of Texas Medical Branch Summer Undergraduate Research Program provides funded research opportunities for students interested in biomedical research. The program runs 6 June – 12 August 2005. Deadline for the application is 18 February 2005. Visit their website to apply on-line at <http://gsbs.utmb.edu/surp/>

Career Services

“Early Bird” Pre-Health Applicant Workshop

For students who want to start the application process early (this workshop also held in the Spring):

Thursday, November 11

4:00-5:30pm

McNeil 97