Registration Form for Regional ABLE Meeting
Saturday, January 16, 2010 at
McDaniel College, Westminster, MD

The registration fee is $40.00. This includes a continental breakfast, box lunch, snacks/beverages, and all of the workshop documentation. Please make checks payable to McDaniel College. The registration deadline is Monday, January 11, 2010. You will receive an E-mail confirmation with a campus map and directions when your registration is received.

Name: __________________________   Title: __________________________

Address: __________________________

City: __________________________   State: __________________________   Zip: __________________________

E-Mail: __________________________

Conference Workshops: Please indicate your first and second choice of workshops below. Descriptions of the workshops are on the next page. All 4 workshops will be offered in both the morning and afternoon sessions.

__________ Defining the Patuxent River Watershed

__________ Substrate Size Selection by Bean Beetles

__________ A Study of Fermentation by Saccharomyces cerevisiae

__________ Active Learning in the College Science Classroom

Do you require any special accommodations? If so, please describe:

Mail your registration form, check and poster presentation form (if you intend on presenting a poster) to the address below. The registration deadline is 1/11/2010.

Mr. Bob Repsher
McDaniel College
2 College Hill
Westminster, MD 21157
Workshop Abstracts

“Defining the Patuxent River Watershed”, presented by Debby Luquette, Howard Community College, Columbia, MD.

Students enrolled in Environmental Science at Howard Community College are generally non-majors with many interests besides their environment. The lab course evolved from a series of exercises that gave some experience in the various habitats of the Patuxent River watershed and looked at the consequences of human habitation on it. However, many students have little experience in natural settings and quickly lose sight of the goal of field lab exercises – understanding the role of the natural habitat on the watershed – when confronted with each new habitat and a stack of field guides. This presentation looks at the introductory lab exercise developed to remedy this situation. The exercise, Defining the Patuxent River Watershed, gives students the opportunity to explore the Patuxent River Watershed using satellite images and uses guided questions about their activities in the watershed and the distribution of natural habitats, population and human activity in Howard County, MD. In this presentation I will conduct this lab exercise and demonstrate how it ties into the rest of the course.

“Substrate Size Selection by Bean Beetles”, presented by Lawrence S. Blumer, Morehouse College, Atlanta, GA.

Live animal systems that are easily manipulated and permit rapid data collection would be ideal for teaching non-science majors and introductory-level majors the methods of science. In this study, we use the well-developed bean beetle, Callosobruchus maculatus, model system to guide students in the development and implementation of an experiment that is an authentic scientific study from which they can easily collect meaningful data. Bean beetles are agricultural pest insects of Africa and Asia. Females lay their eggs on the surface of beans (Family Fabaceae) and the entire pre-adult parts of the life cycle occur inside the host bean. In this study, students design and conduct experiments to evaluate whether female bean beetles discriminate between beans of different sizes within one bean species. We also will review the on-line resources available for laboratory studies with the bean beetle model system and present an assessment strategy for student understanding of the scientific process.

“A Study of Fermentation by Saccharomyces cerevisiae”, presented by Janice M. Bonner, College of Notre Dame of Maryland, Baltimore, MD.

This workshop presents a simple method for investigating fermentation. In the basic reaction, a 7% yeast suspension is combined with a 1.0% glucose solution in conical centrifuge tubes with perforated caps. At regular intervals, students mark the fluid level in the fermentation tubes to measure CO₂ produced and measure the concentration of glucose with diagnostic test strips. The basic reaction can be carried out within 15 minutes. Once the basic reaction is established, the investigation can be modified. For example, students can study the effect of using increasing concentrations of glucose or carbohydrate substrates other than glucose as substrate.

“Active Learning in the College Science Classroom”, presented by Karen Sirum, Bowling Green State University, Bowling Green, OH.

Introductory science classes serve as gateway, facilitating student interest and recruitment to the sciences and scientific ways of thinking, or alternatively, turning students away from the sciences as a major, an area of interest, and even as a value in everyday life. Interactive Engagement (IE) teaching strategies include methods to facilitate student interaction with not only the course content and with the instructor, but also among students--the benefits to student learning are well documented. These pedagogical approaches include peer instruction, active, problem-based, Team-Based, cooperative, and collaborative learning. IE is effective for both large and small enrollment classes and can be applied to any discipline. In this workshop session, participants will learn about IE by actually doing it, and we will share ideas about group work as an instructional strategy, including ideas about how technology can be used to make it more effective.
Poster Session Application Form

If you are interested in presenting a poster on any topic relevant to the teaching of biology labs please complete this form and return it with your registration. Easels and poster boards will be provided to presenters.

Title of Poster:

Author(s):

Poster Abstract (approximately 150-200 words):