Fall 2010 AP Biology Higher Ed Validation Study

The Advanced Placement (AP®) Program, in partnership with Harris Interactive®, conducted a study of 60 representative AP-score-receiving colleges and universities to finalize the AP Biology curriculum. The AP program sought confirmation that—

- The revised course and exam aligns with the expectations of post-secondary institutions as to what content and skills AP students should learn in AP Biology to qualify them for successful placement into a subsequent college course; and
- The depth and breadth of the revised course content is appropriate for two semesters of introductory college-level study.

Qualified study participants included department chairs and/or faculty members, who either taught introductory college-level biology during the past three years or influence the department’s credit- and-placement policy. The following institutions were represented:

- American University
- Amherst College
- Barnard College
- Baylor University
- Boston University
- Bowdoin College
- Brigham Young University
- CA State University, Fresno
- CA State Polytechnic University
- Carleton College
- Carnegie Mellon University
- Claremont McKenna College
- Clemson University
- Colby College
- Colgate University
- College of Charleston
- College of the Holy Cross
- Connecticut College
- Cornell University
- Davidson College
- Georgetown University
- Georgia Institute of Technology
- Haverford College
- Iowa State University
- Johns Hopkins University
- Loyola University, Chicago
- University of Notre Dame
- Ohio State University
- Penn State University
- Pepperdine University
- Rochester Institute of Technology
- Stanford University
- SUNY Center, Albany
- Trinity College
- Union College
- Villanova University
- Washington State University
- Wellesley College
- Whitman College
- University of Alabama
- University of Arkansas, Fayetteville
- University of CA, Los Angeles
- University of CA, Riverside
- University of CA, Santa Barbara
- University of Central Florida
- University of Connecticut
- University of Colorado
- University of Florida
- University of Iowa
- University of Kentucky
- University of Mary Washington
- University of Maryland
- University of Pittsburg
- University of Tennessee
- University of Vermont
- University of Virginia
- University of Wisconsin, Madison
- University of Wisconsin, La Crosse
- University of British Columbia
- Yale
The study’s findings revealed that the AP Biology Curriculum Framework reflects the conceptual approach of a college-level biology survey course, and encourages teachers to approach the course in the same way that college instructors do—with a focus on science practices, inquiry, and depth of conceptual understanding. Specifically—

1) The **scope** of the revised course reflects the position of college and university instructors on the scope of introductory college-level biology courses.
2) The revised course emphasizes the **key concepts and skills** valued within the discipline of biology.
3) The revised course encourages **instructional flexibility and depth** in how students investigate science using college-level inquiry skills.

“The progression of the curriculum is logical and builds on prior steps, reinforcing the individual ‘enduring understandings’ multiple times as other topics are explored.”

—College Faculty Participant

“If students ‘get’ and retain the enduring ideas outlined in the curriculum, they are going to be successful in our subsequent courses. . . . The course looks challenging, which is great.”

—College Faculty Participant

With regard to the depth of conceptual understanding and breadth of course content coverage, the college faculty who participated in this study reported that the revised course—

- Is very effective at preparing students for success in sequent college-level biology courses
- Is highly favorable for granting credit and placement
- Balances depth of conceptual understanding with breadth of topic coverage and inquiry-based instruction to foster student success in sequent college-level courses.

“I found this to be an effective, comprehensive, and coherent curriculum that hits on the key concepts in biology, which students will need for sequent courses. I was especially impressed by the emphasis on concepts and synthesis over facts and details; the balance between conceptual and factual knowledge is very strong. The hierarchical organization is highly effective and the cross-connections linking of what are traditionally considered distinct fields and concepts is impressive.”

—College Faculty Participant