



## National Academies Summer Institutes on Undergraduate Education in Biology

<http://www.AcademiesSummerInstitute.org/>

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The **NATIONAL ACADEMIES SUMMER INSTITUTE ON UNDERGRADUATE EDUCATION IN BIOLOGY** is a national effort to improve college education in biology. Now in its seventh year, the Summer Institute helps faculty develop and disseminate effective ways to promote learning in large undergraduate biology courses, including introductory biology, molecular biology/genetics, and ecology/evolution.

The National Research Council of the National Academies and the Howard Hughes Medical Institute invite research university faculty to build teaching skills and transform the undergraduate biology classroom at this week-long gathering in beautiful Madison, Wisconsin.

The goal of the Summer Institute is to transform biology education at research universities by improving classroom education and attracting more diverse students to research. We are training a new generation of faculty by introducing them to a scientific approach to teaching that reflects the way we function as researchers. In addition to providing participants hands-on experience in innovative educational methods, the Institute helps foster a national community of faculty who are interested in both productive research and quality teaching, a network useful to faculty and administrators at all career stages.

The Summer Institute is designed to model the **scientific teaching** principles on which it is founded and draws on the expertise of both participants and presenters. Current research on active learning, assessment, and diversity are woven through the week, creating a forum for participants to share ideas and develop innovative instructional materials which they implement upon return to their own campuses. Participants experience, evaluate, and collect a portfolio of innovative teaching approaches and instructional materials ready to be used and adapted.



The idea for the Summer Institute emerged from the 2003 National Research Council report, *Bio2010: Transforming Undergraduate Education for Future Research Biologists*. The report concludes that faculty development is a crucial component for improving undergraduate biology education. It maintains that universities need to provide faculty with opportunities to refine classroom techniques and to better integrate concepts in math and physical sciences with biology.

Since 2004, 82 institutions from 40 states have sent teams of 2-3 instructors to one or more Summer Institute sessions. The 250+ Summer Institute alumni collectively teach over 100,000 students per year.

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