



The Story of Penn State CHANCE: Teaching Conservation through Experience

Jacqueline S. McLaughlin

Penn State Lehigh Valley

We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely. *Edward O. Wilson*

CHANCE (Connecting Humans And Nature through Conservation Experiences) is an established Penn State University engaged scholarship program that teaches conservation science and global sustainability at the front line. To do this, CHANCE creates unique learning environments which immerse its participants, students and science teachers, in nature. Participants work directly or indirectly (online) in the field with scientists to EXPLORE species biodiversity, RESEARCH ecology, and CONSERVE the biological structure of select and threatened ecosystems around the world. The ultimate goal: To prepare global-minded citizens who can analyze, create, and implement solutions to the challenges of our time such as habitat destruction, energy, air, food, water pollution, and climate change.

CHANCE was founded in 2004 and today has nearly forty-five partners world-wide. CHANCE's current work in Costa Rica, China, and Panama will be presented, as well as its online modules and three step "field course experiential learning model." The latter includes: 1) innovative web-based pre-trip assignments that provide essential background knowledge; 2) a two week long field-based trip experience that includes journal keeping, authentic ecological research and presentations, hands-on conservation work, participation in discussion groups, species assignments, and independent exploration; and, 3) post-trip web-based assignments that encourage the integration and application of key concepts learned via reflection. Data supporting improved student engagement and knowledge, perception of research skills, and interest in future conservation-based work using the CHANCE learning model will also be shared.

Short Biography

Dr. Jacqueline McLaughlin is an Associate Professor of Biology at Penn State Lehigh Valley and Founding Director of Penn State's award-winning, international, and engaged scholarship program called CHANCE (Connecting Humans And Nature through Conservation Experiences; www.chance.psu.edu). She is a visionary who effectively "reimagines" educational interfaces, course delivery mechanisms, and programs that utilize authentic science research in both formal and informal settings. Dr. McLaughlin's research interests hold true to her endless passion for

teaching itself: (1) the utilization of authentic research in undergraduate biology education; (2) building pedagogical and mentoring frameworks that help science faculty transform undergraduate laboratory environments into authentic research experiences; and, (3) creating and assessing international programs that are interdisciplinary, research-rich, and effectively teach conservation.

Long Biography

Dr. Jacqueline McLaughlin is an Associate Professor of Biology at Penn State Lehigh Valley, and Founding Director of Penn State's award-winning, international, environmental education engaged scholarship program called CHANCE (Connecting Humans And Nature through Conservation Experiences). Whether she is working as a cell and developmental biologist on cancer cell lines with her undergraduate students in her research laboratory or as a conservation scientist studying the effects of global climate change on ecosystem diversity and dynamics with high school teachers and undergraduates in the fields of China, Costa Rica, Cuba, or Panama, her overall mission is to create learning environments wherein students, at any level, are inspired and effectively learn science by doing actual research. As a scholar, she has published, as an author or editor, 45 publications in peer-reviewed books, journals, proceedings, and online environments, and has gratefully accepted numerous awards at the local, state, and national levels for excellence in teacher professional development, international programming and education, and undergraduate biology teaching and learning. Dr. McLaughlin's research interests hold true to her endless passion for teaching itself: (1) the utilization of authentic research in undergraduate biology education; (2) building pedagogical and mentoring frameworks that help science faculty transform undergraduate laboratory environments into authentic research experiences; and, (3) creating and assessing international programs that are interdisciplinary, research-rich, and effectively teach conservation.

Dr. McLaughlin prides herself in being a visionary who effectively "reimagines" educational interfaces, course delivery, and programs. Her experiences as a master teacher of biology, researcher in the field of biology teaching and learning, and director of a R-1 university-wide international educational program have also provided her expert training in creating effective web-based educational materials and interfaces, partnership building (CHANCE has 45 partners worldwide), and leadership skills.

Curriculum Vitae

<http://www2.lv.psu.edu/jxm57/>

<http://www2.lv.psu.edu/jxm57/cv.html>