

2015 Academic Summit Plenary Speaker
Kathy S. Williams, Director, SDSU Center for
Teaching & Learning



Dr. Kathy S. Williams is an ecologist with a passionate interest in improving undergraduate education - especially science education – for all students. For over 25 years, she has conducted research and workshops on ways to improve courses and curricula at local, regional, and national levels. She joined the SDSU Biology faculty in 1988, then served as Vice-Chair of Biology and Director of Undergraduate Advising and Curriculum for 8 years before serving as co-director and director of the SDSU Center for Teaching and Learning 2008-2014.

In addition to teaching courses in introductory organismal biology and coevolution, she and her graduate students conduct research on insect ecology and conservation biology. Williams also conducts science education research in three tracks, which she supports with funding from the National Science Foundation. Williams, with Brock Allen (Co-PI), is developing and testing Project PLURIS (Purposeful Learning in Undergraduate Research and Independent Studies). PLURIS is designing innovative strategies for promoting High-Impact Practices (HIPs) like undergraduate research, by making them available to more students, elucidating and measuring academic outcomes, and creating syllabi for these experiences. Her BioHUB project is assessing the use of conceptual assessments in science to better understand and improve how students reason and solve problems about science. She is collaborating with faculty across the country to develop and use centralized servers (e.g., ciHUB.org) where Biology conceptual assessment investigators can post tests and research data. Additionally, since 2006 Williams has collaboratively pursued a third research focus by conducting research characterizing the distribution, origin, roles, and achievements of SFES (Science Faculty with Education Specialties), i.e., scientists who take on specialized science education roles within their discipline, and those results appear in the journals *Science* (2008) and *Proceedings of the National Academy of Sciences* (PNAS, 2013). She is also a co-PI with SDSU colleagues from the College of Sciences and School of Teacher Education, on two NSF- and Qualcomm-funded Noyce projects to promote excellence in science and math secondary education by supporting Master Teachers and also credential candidates to develop more effective teaching methods and assist other teachers to do the same.

Dr. Williams received her Bachelor's degree in Liberal Arts (Plan II Honor's Interdisciplinary program) from The University of Texas Austin, and her PhD in Population Biology from Stanford University.