Using Real-World Data to Train Faculty at Minority-Serving Institutions

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In support of the Annual Meeting’s theme of “observations lead the way,” the Education Program highlights several initiatives that promote the use of real-world data while increasing diversity in the AMS-related fields.

AMS Climate Studies Diversity Project
- NSF-funded for 5 years (2011-2016)
- Introduced/enhanced geoscience and/or sustainability focused course components at MSIs that are signatories to the American College & University Presidents’ Climate Commitment (ACUPCC) and/or members of the Louis Stokes Alliances for Minority Participation (LSAMP)
- Partnered with Second Nature to recruit signatories
- Introduced AMS Climate Studies to 101 faculty representing 90 MSIs
- Via a NSF no-cost extension, a 5th course implementation workshop will be held in May 2017
- Apply online: www.ametsoc.org/climatediversity
- Application deadline is 15 March

AMS Climate Studies Course Materials
- Course materials include: (e)textbook, (e)Investigations Manual, RealTime Portal, faculty website, and faculty resources
- Textbook: covers the fundamental science
- Investigations Manual (IM): demonstrates textbook concepts using real-world data
- RealTime Portal: offers news and activities with data for contextual learning, scholarship and career information for students
- Faculty website: provides a secure location for answer keys that integrate with course management systems
- Faculty resource materials: includes PowerPoint presentations for each chapter, textbook image files, test bank questions and answers, and a faculty manual with learning objectives and a guide to offering the course

AMS Climate at a Glance App
- AMS trains faculty
- Faculty offer course; students learn
- Faculty share knowledge / experience

The AMS Climate Studies Diversity Project builds on highly successful, NSF-supported diversity projects for the AMS Weather and Ocean Studies courses (2001-2008). Together, the three AMS courses have reached 220 MSIs and more than 25,000 MSI students.

AMS Climate at a Glance App
- Featured in the AMS Climate Studies Investigations Manual
- Draws data from NOAA’s Climate at a Glance website
- Enables user to easily evaluate data from hundreds of locations across the U.S. and on multiple time scales to determine whether or not there is objective evidence consistent with climate change

MSI-REaCH
(Reconstructing Earth’s Climate History)
- NSF-funded for 3 years (2015-2018)
- Collaboration with Consortium for Ocean Leadership and 7 other institutions/organizations
- Provides substantive professional development for MSI faculty and serves to enhance research-type experiences for students at participating institutions
- Focuses on paleoclimate data gained through ocean sediment cores
- Partners faculty with researchers and science instruction experts who act as mentors as faculty implement what they learn

School of Ice
- Lockheed Martin-funded
- Partnered with the U.S. Ice Drilling Program Office (IDPO) at Dartmouth College
- Focuses on paleoclimate study through examination of the ice core record
- Includes tours of ice processing facilities, university labs, and meetings with logistics experts responsible for U.S. national research in polar regions
- Faculty interact with research scientists and education specialists that support faculty in implementing ice core data/information into classroom
- Apply online: https://goo.gl/forms/UhomfScVIpdMVzLQ2
- Application deadline is 12 February

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