











NCAS-M Best Practices and Next Steps – Broadening Participation of Underserved Students in the Geosciences



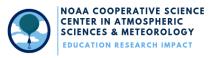
Sen Chiao





NCAS-M Program Primary Goal

To produce a diverse and highly skilled cadre of technically and environmentally literate professionals who can help build a more resilient nation in the face of increasing vulnerability to weather extremes and other environmental threats.



NCAS-M Program Objectives

- Education, training, and graduation outcomes
- STEM diversity in NOAA-mission fields
- NOAA workforce impact
- Experiential training for NCAS-M cohort fellows
- Annual professional development in preparation for NOAA-mission career paths
- Core competency attainment by cohort fellows



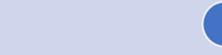
Five-Tiered Approach to Develop Talent Pipeline

1. Equity and Access

- Pipeline outreach program
- Minority Serving Institutions
- NOAA mission fields
- Internships

5. Workforce Ready

- Advanced degrees
- NOAA careers
- Technical Workforce



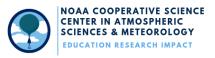


- 3. Education and Training
- 4. Mentoring
- Student Development
- Technical skill development
- Experiential opportunities
- Formal and informal mentoring



Education & Training Activities

- Individual Student Development Plan
- Experiential Training Summer Program for Rising Sophomores
- NOAA Experiential Research and Training Opportunity
- NCAS-M Center-wide Professional Development
- Technical Trainings and Professional Meetings



Best Practices

- Build genuine student/staff/faculty/mentor relationships
- Support students' academic, research and professional skills
- Support students' personal development
- Enhance students' experiential training
- Connect students with more experienced peers and alumni
- Collaborate with NOAA EPP/MSI, NOAA mentors, and Education Experts from other CSCs



Next Steps

- Refine education and training activities
- Add NOAA Skills and Competencies Training by NOAA subject matter experts
- Implement Annual Cohort Experience
- Assess program activities to ensure core competency attainment
- Implement a hybrid approach to enhance performance and collaborations
- Continue cross collaboration activities with CSCs





NCAS-M Facts & Figures 2016-2022

5+ Million in Leveraged Dollars



94

Joint or Solo Research publications



200+ NOAA Collaborative Research Projects



165

Students Supported over Lifetime Agreement



214 NOAA Collaborators



2K

Young Students Reached at Outreach Events



5 AEROSE cruises on Atlantic Ocean



279

Conference Technical Presentations



10 Alumni added to the NOAA Workforce



15

Doctoral Degrees (PhDs)



250

NOAA Student Experiential Learning Activities



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Program Information

The Department of Earth, Environment and Equity (E3), will open its doors in the College of Arts and Sciences in Fall 2024. The new department will offer undergraduates degrees in Environmental Science, Environmental Studies, Atmospheric Science and Earth System Science.

The department offerings expand upon the curriculum and current degree programs in Interdisciplinary Studies, which offer concentrations in Environmental Studies and Environmental Science. The E3 department will maintain its interdisciplinary training by emphasizing rigorous environmental scientific research, combined with course work in environmental justice and community-driven curricula.



