Supporting Broader Impacts on a Decentralized Campus

Structures for SHARING and PARTICIPATION Increase Sustainability, ROI, and Community Impact at UW–Madison

OPPORTUNITIES FOR INDIVIDUALS AND GROUPS FROM CAM FACILITIES • EDUCATIONAL MATERIALS • PROFESSIONAL DEVELOPMENT • NETWORKING/COMMUNICATION FORUMS • MODULAR/FLEXIBLY STRUCTURED EVENTS AND PROGRAMS •

Institute for Biology Education

biology.wisc.edu

Promoting cross-campus collaboration through modular outreach programs, professional development, event coordination support, and "matchmaking"

The Institute for Biology Education, now 25 years old, partners with and serves units across the campus. Institute staff give Broader Impacts workshops for faculty, staff, and students, develop outreach programs with community and campus partners, and facilitate partnership activities within and beyond campus. Student research programs for underrepresented groups and K-12 outreach— including service learning courses, after-school science clubs, a Middle School Science Symposium, and other events and programs—are created with modular structures that make it easy for individuals, campus units, schools, and community organizations to hook in.

Two campus-wide structures provide essential support, and NSF-funded partners across campus, such as the five described here, contribute additional facilities, program structures, professional development, and volunteers

Science Alliance

science.wisc.edu

Open forum for communication and collaboration

The Science Alliance is a voluntary organization that brings UW–Madison's outreach practitioners together to share science with the community. We meet weekly to share information and best practices, plan campus activities like the annual Science Expeditions event, meet the requests of the community (e.g., for Science Night presenters), and to discuss common challenges. We also share our activities with each other through a weekly email with 700 subscribers.

SCIENCountErs Program, Institute for Chemical Education

SCIENCountErs aims to inspire and excite a diverse audience of future STEM professionals through fostering partnerships between STEM institutions (higher education and museum) and their local Boys & Girls Clubs. To date, the program is being run in eight sites nationally.

Volunteers lead weekly science clubs for students grades 4-8 with hour-long activities, many of which are based on NSF-funded research performed at UW–Madison (with the SCIENCountErs program written into the Broader Impact Statements for these grants). Activities are hands-on and inquiry-based. A low student-to-mentor ratio allows children to work at their own pace and build strong relationships with mentors.

Delta Program in Research, Teaching and Learning

The Delta Program in Research, Teaching and Learning consults with graduate students and faculty who are applying for fellowships and grants, to build their capacity to effectively address the broader impacts criterion. Key to this is helping graduate students and faculty leverage in their plan the professional development and outreach opportunities that are provided by the Delta Program and other campus units.

Wisconsin Energy Institute

Created in 2006, WEI is a world-class leader in clean energy research, education and outreach. More than 100 affiliated faculty from numerous disciplines connect, collaborate and coordinate efforts to solve the world's energy problems. Our outreach efforts:

- Engage educators and students in UW–Madison's interdisciplinary STEM energy-related research
- Build a working community of faculty, staff, teachers, and students to bring research-based energy knowledge into the classroom and to the general public
- Are grounded in current education research and the framework for the Next Generation Science Standards

Materials Research Science and Engineering Center

The University of Wisconsin Materials Research Science and Engineering Center (UW MRSEC) creates and disseminates research-inspired education resources to excite people about the power of materials science and engineering to change the world.

Wisconsin IceCube Particle Astrophysics Center

IceCube is the biggest and strangest telescope in the world. It was built in one of the most remote and extreme environments on Earth—the South Pole—to learn about mysterious cosmic messengers called neutrinos. IceCube hopes to discover what neutrinos can tell us about the composition of matter, cosmic explosions, and more. The IceCube Neutrino Observatory inspires learners of all ages and diverse backgrounds to develop continued curiosity about our Universe.