



NATIONAL CENTER FOR
SCIENCE & CIVIC ENGAGEMENT
N C S C E



Funded in August, 2009 by the [Learn and Serve America](#) Higher Education program of the [Corporation for National and Community Service](#), **GLISTEN** (the Great Lakes Innovative Stewardship through Education Network), is a three-year project that will harness the expertise and innovation of college faculty and undergraduate students in 8 states and 2 Canadian provinces to promote stewardship of the Great Lakes, an ecosystem containing 20% of the world's fresh water.

Vision and Mission

By focusing undergraduate curriculum development efforts, academic courses, research, fieldwork, and other resources on a single but multi-faceted civic issue, GLISTEN will build the capacity of STEM faculty and departments to:

- improve learning in the STEM disciplines
- engage students in direct action (i.e., service-learning) and community-based research to benefit resource-strapped governmental and community-based organizations
- position students to take advantage of “green” professional opportunities upon graduation,
- provide students with the 21st Century skills (such as critical thinking, capacity for collaboration, as well as associated civic engagement skills), and
- help students as well as members of the involved communities become enlightened stakeholders who practice active stewardship behaviors in their private and civic lives.

How GLISTEN will work GLISTEN is an initiative of the National Center for Science and Civic Engagement at the Harrisburg University of Science and Technology. GLISTEN will make sub-awards to lead institutional partners designed to support collaborative clusters in 8 Great Lakes states. Each cluster will embrace at least one 4-year and one 2-year undergraduate institution where Great-Lakes-stewardship-focused courses will be developed and offered. GLISTEN Clusters will include community-based organizations, local governments and others as collaborators working to achieve goals for water quality, clean air, conservation, and other environmental improvement. Each cluster will also include representatives from at least one informal science education venue, such as a science museum, nature center or state or national park. Through these venues and others, the outcomes of cluster projects will be shared with the general public to empower citizens to engage more effectively in scientifically-informed stewardship behaviors. While each cluster will focus on a particular Great Lakes stewardship challenge, all will share goals in the following three areas:

1. Undergraduate student leadership development and career preparation Colleges in each cluster will recruit and employ undergraduate stewardship liaisons, who will serve as the logistical “glue” linking participating faculty and community-based organizations who will benefit from GLISTEN-sponsored service-learning and research activities. These students will provide critical project leadership, ensuring that the cluster maintains an optimal balance among curricular goals, community needs, and student interests. Student leaders will also receive specialized training to prepare them to excel in the “green jobs” of the future.
2. Curriculum development, dissemination and the creation of a community of practice In each cluster, faculty will collaborate across institutions to integrate on-the-ground stewardship activities to improve learning in their undergraduate STEM coursework. The SENCER (Science Education for New Civic Engagements and Responsibilities) Summer Institutes will be focal points for curriculum development. Faculty from Great Lakes campuses will not only benefit from models presented by faculty from around the country, but will also have the opportunity to caucus annually to share best practices, successes and challenges, and disseminate strategies for supporting each other’s efforts. Resources from State Campus Compacts, the Great Lakes National Program Office of the EPA, the Great Lakes Commission, and NOAA will also be employed to help faculty link stewardship activities with course content.
3. Evaluation and assessment to promote program effectiveness The project will be thoroughly evaluated with respect to both general operations and specific outputs. GLISTEN’s Advisory Board, representing both higher education and community-based stakeholders, will monitor the success of the project’s operational strategies on a semi-annual basis, while providing ongoing advice and assistance in the areas of curriculum development, community-based project implementation, and student leadership development. To assess learning and civic engagement outcomes, GLISTEN-associated courses will utilize the Student Assessment of Learning Gains (SALG) and other assessment resources of the National Center for Science and Civic Engagement.

Outcomes

During its first 3-year funding cycle, GLISTEN aims to enroll up to 3,500 undergraduate students in coursework incorporating Great Lakes stewardship activities. These activities – including water quality monitoring, restoring wetlands, and assessing and addressing aquatic and terrestrial non-native species invasions – will benefit at least 20 community-based organizations in 8 states undergoing challenges to their operational capacity due to the recent economic downturn. At least 100 undergraduate stewardship liaisons will assist faculty and community-based agencies with the coordination of these activities and form a corps of future leaders in efforts to restore and protect the Great Lakes.

For further information, contact:

Glenn C. Odenbrett, Project Director
216-407-4413
glenn.odnbrett@ncsce.net