

### >>> SENCER Summer Institute (SSI)

Annual, intensive program for individuals and teams focused on improving student skill, interest, and confidence in STEM. The rich mix of sessions and workshops focus on effective pedagogies, examples of successful campus and community applications, and resolving challenges educators face in the current climate.

### >>> SENCER Centers for Innovation (SCI)

Nine regional centers that provide expertise, local support, and workshops to complement national symposia. Symposia are open to participants from around the country and internationally, but are especially designed with regional needs and interests in mind.

### >>> Washington Symposium and Capitol Hill Poster Session

Annual showcases of faculty and student work centered on themes of contemporary significance.

### >>> Department Chairs Retreat

Intended for those who see greater potential for academic leadership and innovation in the role of chair. Participants explore intellectual and cultural dimensions of leadership, barriers to participation in leading change, and how to support faculty and administrators as they strive to create engaged and responsive departments.

### >>> Science Education and Civic Engagement: An International Journal

Online, peer-reviewed journal that publishes articles that examine how to use important civic issues as a context to engage students, stimulate their interest, and promote their success in STEM.

### >>> SENCER Model Series

Curricular examples of effective strategies of teaching STEM content through the lens of a civic problem. Course and program models have clear, continuously assessed learning outcomes, and evidence potential for broader implementation and adaptation.

### >>> Backgrounders

High quality syntheses of some of the complex civic issues that SENCER courses and programs sometimes use to teach basic science.

### >>> Post-Institute Implementation Awards

Grants to support campus- or informal education venue-based program development and broader faculty development.

### >>> Recognition and Career Development Programs

- William E. Bennett Award for Extraordinary Contributions to Citizen Science
- SENCER Leadership Fellows Program
- Visiting Scholar Program

## 2015 - 2016 ACADEMIC YEAR NCSCE SYMPOSIA AND DEADLINES

*Each year, NCSCE offers national and regional symposia, publications, and resources to support the community in developing and adapting courses and programs that connect course content to issues of local, national, and global importance.*

### September 27 - 29, 2015

2015 Washington Symposium and SENCER-ISE National Meeting  
*Washington, DC*

### September 30, 2015

Submission deadline for Winter 2016 issue of *Science Education and Civic Engagement: An International Journal*

### September 30, 2015

Deadline to submit an application for SSI 2015 Post-Institute Implementation Awards

### October 15, 2015

Fall deadline for applications and/or nominations to the SENCER Leadership Fellows Program

### October 15 - 16, 2015

SCI-South Fall Meeting  
*Asheville, NC*

### October 16, 2015

SCI-MidAtlantic Fall Meeting  
*New York, NY*

### October 17, 2015

SCI-New England Fall Meeting  
*Boston, MA*

### March 11 - 12, 2016

SENCER Eastern Multi-Regional Meeting  
*New Brunswick, NJ*

### March 30, 2016

Submission deadline for Summer 2016 issue of *Science Education and Civic Engagement: An International Journal*

### March 30, 2016

Submission deadline for 2016 SENCER Model Series

### April 8 - 9, 2016

SENCER Western Multi-Regional Meeting  
*Denver, CO*

### June 2, 2016

Deadline for nominations for the William E. Bennett Award for Extraordinary Contributions to Citizen Science (individual and team categories)

### June 2 - 4, 2016

NCSCE Department Chairs Retreat  
*Washington, DC*

### July 1, 2016

Summer deadline for applications and/or nominations to the SENCER Leadership Fellows Program

### July 28 - August 1, 2016

2016 SENCER Summer Institute  
*Chicago, IL*

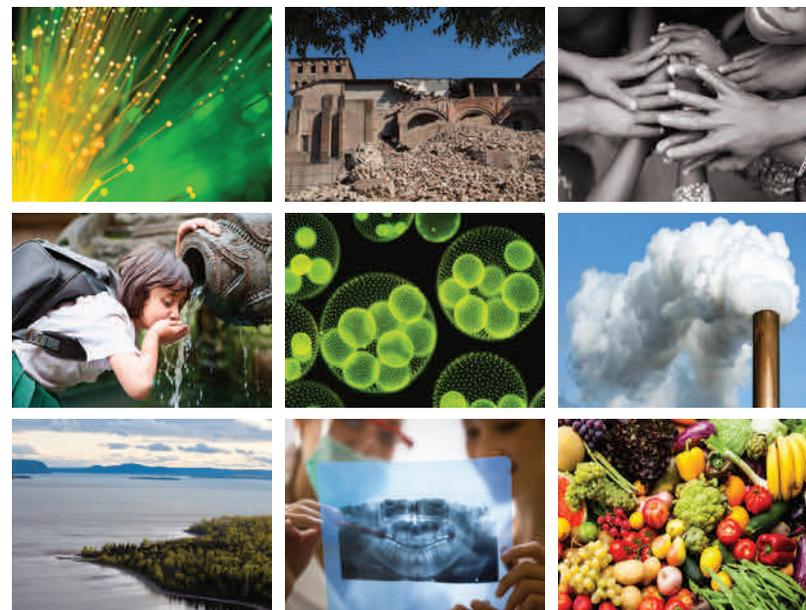
### September 25 - 27, 2016

2016 Washington Symposium  
*Washington, DC*

### CONTACT US

We invite you to contact us with any questions or suggestions. Our phone number is (202) 483-4600, and email addresses for all staff and initiative leaders are available on our websites.

[WWW.NCSCE.NET](http://WWW.NCSCE.NET)  
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INSPIRING AND SUPPORTING INITIATIVES TO  
IMPROVE EDUCATION  
AND STRENGTHEN OUR DEMOCRACY

Our nation has long recognized the importance of advancing knowledge and capacity in science, technology, engineering, and mathematics (STEM) to develop, advance, and strengthen our democracy and its institutions.

What was recognized in the 1860s through the founding of the National Academy of Sciences and the Land-Grant Movement, arguably the most significant step in democratizing advanced learning ever undertaken by a national government, emerges as an even more critical need today as we seek to understand and address many of the most important problems and vexing questions of our time.

Though we have extraordinary resources available to students to study science, a declining percentage of students are taking full advantage of these opportunities. Too few Americans are completing major study in the scientific fields and, of the rest, few study any more science and math than is minimally required. What can be done to reverse these trends?

The National Center for Science and Civic Engagement (NCSCE) offers programs, services, and assets to colleges, universities, schools, and community organizations designed to make STEM education real, relevant, rigorous, and responsible, and support student success and achievement. We invite you to join us in our work.

What improvements in teaching practices and curriculum design will inspire, motivate, and sustain intellectual excellence among our students? How can formal (K-12 and college education) and informal education be integrated in ways that advance the interests of traditionally underserved and under-engaged students? How can students learn from engaging with the great civic challenges of our time? How can new ways of learning improve the human condition?

These questions and their connected civic goals shape the work and priorities of the National Center for Science and Civic Engagement. Why? Because, as a nation, we can ill afford to lose the benefits that accrue when students achieve high levels of competence in a variety of critical, 21<sup>st</sup> century skills, especially those developed and nurtured through study in the STEM fields.

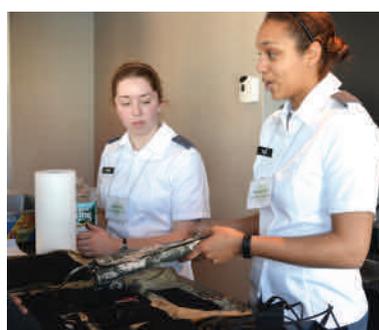
Our Center's programs emphasize attention to students not just as candidates for college degrees, but as citizens who contribute to the essential work of creating, applying, and disseminating knowledge — the knowledge we need to make our democracy.



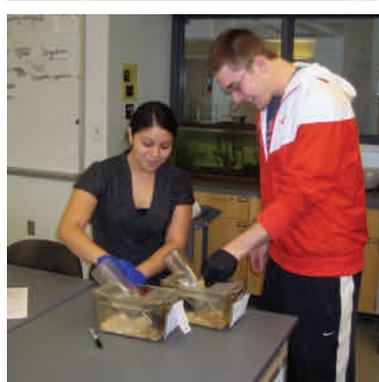
SENCER courses and programs connect science, technology, engineering, and mathematics content to critical local, national, and global challenges. Students and faculty report that the SENCER approach makes science more accessible, real, and relevant to the welfare of our democracy.



SENCER improves science education by focusing on real world problems and, by so doing, extends the impact of this learning across the curriculum to the broader community and society.



We do this by developing faculty expertise in teaching 'to' basic, canonical science and mathematics 'through' complex, capacious, often unsolved problems of civic consequence.



Learn more about upcoming symposia, new resources, grant opportunities, and publications by visiting [www.sencer.net](http://www.sencer.net). SENCER is supported by the National Science Foundation (NSF).



SENCER-ISE explores and evaluates models for sustainable partnerships between informal science and higher education professionals around issues of civic consequence. SENCER-ISE works by creating durable institutional relationships between these sectors; examining whether these partnerships can bring about a transformation in STEM educational practices and instilling in college graduates and ISE audiences the idea that informal science education institutions and activities are credible and accessible sources of high quality life-long learning on matters of science, public policy, personal well-being, and public welfare. The initiative is supported by the National Science Foundation and the Noyce Foundation.

To achieve its goals, SENCER-ISE initiated the Civic Engagement Partnership Support Awards Program, which supports equitable partnerships between higher education and informal science education institutions to work together on addressing civic issues over a three-year period of funding. In addition to funding, recipients are provided technical assistance (such as identifying audience outcomes), resource materials on relevant science education topics, and opportunities to interact with members of other partnerships and the larger SENCER community.

Partnerships create networks in which awardees can learn from others' experiences, engage in common reflective activities, and create models of collaboration. Beneficiaries include faculty, ISE professionals, students, and the general public.

**>>>>>>>> CIVIC ENGAGEMENT PARTNERSHIP SUPPORT AWARDEES <<<<<<<<**

- |  |  |
|--|--|
| Antioch College and<br>Glen Helen Outdoor Education Center                                       | New Mexico EPSCoR<br>and New Mexico Museum<br>of Natural History and Science |
| Brooklyn College of CUNY<br>and Gateway National Recreation Area<br>of the National Park Service | Raritan Valley Community College<br>and New Jersey Audubon                   |
| Cornell University and Sciencenter   | Saint Mary's College of California<br>and Lindsay Wildlife Museum            |
| Fordham University<br>and Wildlife Conservation Society  | University of Connecticut<br>and Connecticut Science Center                  |
| Paul Smith's College<br>and The Wild Center  |  |

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[WWW.SENCER-ISE.NET](http://WWW.SENCER-ISE.NET)  
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Engaging Mathematics applies the well-established SENCER method to college-level mathematics courses, with the goal of using civic issues to make math more relevant to students.

- Engaging Mathematics:
- Develops and delivers enhanced and new mathematics courses and course modules that engage students through meaningful civic applications,
  - Draws upon state-of-the-art curriculum in mathematics to complement and broaden the impact of the SENCER approach to course design,
  - Creates a wider community of mathematics scholars within SENCER capable of implementing and sustaining curricular reforms,
  - Broadens project impacts beyond SENCER by offering national dissemination through workshops, online webinars, publications, presentations at local, regional, and national venues, and catalytic site visits, and
  - Develops assessment tools to monitor students' perceptions of the usefulness of mathematics, interest and confidence in doing mathematics, growth in knowledge content, and ability to apply mathematics to better understand complex civic issues.

| INSTITUTION                   | COURSES/MODULES   | CIVIC ISSUES  |
|-------------------------------|---|---|
| Metropolitan State University | Environmental Statistics; Mathematics of Sustainability; Mathematical modeling/dynamic systems module | Alternative and renewable energy sources, population dynamics, groundwater; the case for buying local, wind energy, monarch butterflies, whelk populations, industrial stormwater |
| LaGuardia Community College   | Elementary Statistics: Society and the Environment  | Demographic studies, environment, health care and social issues   |
| Augsburg College              | Calculus I  | Ecotourism  |
| Normandale Community College  | Mathematics for the Liberal Arts; undergraduate research modules                                      | Groundwater pollution, climate change, energy consumption   |
| Oglethorpe University         | Great Ideas of Modern Mathematics   | The mathematics of voting, poverty, and income disparity  |
| Roosevelt University          | College Algebra: Modeling the City  | Social justice issues common to Chicago   |

[WWW.ENGAGINGMATHEMATICS.NET](http://WWW.ENGAGINGMATHEMATICS.NET)  
[@MathEngaging](https://twitter.com/MathEngaging)

SCEWestNet is a multi-institutional collaboration that overcomes the serious obstacle of sustaining and growing reform — and creating an effective community of practice — across the expansive 17 states of the west. The project, funded through a grant from the W. M. Keck Foundation, built on existing work by the SENCER Centers for Innovation (SCI) West and Southwest, organizations which anchored the network.

**GROWING REFORM AND CREATING AN EFFECTIVE COMMUNITY OF PRACTICE ACROSS THE EXPANSIVE 17 STATES OF THE WEST**



The vitality of the Great Lakes, an ecosystem that contains 20% of the world's fresh water, is a multi-faceted issue. In focusing undergraduate curriculum development efforts, academic courses, research, fieldwork, and other resources on these complexities, GLISTEN improves learning in the STEM disciplines; engages students in direct action and community-based research; positions students to take advantage of relevant professional opportunities upon graduation; and helps students develop skills including critical thinking and capacity for collaboration.

**HARNESSING THE EXPERTISE AND INNOVATION OF EDUCATORS AND STUDENTS TO PROMOTE STEWARDSHIP OF THE GREAT LAKES**

**CONTACT US**

We invite you to contact us with any questions or suggestions. Phone numbers and email addresses for all NCSCE staff and initiative leaders are available on our websites.

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