



UNIVERSITY OF  
SOUTHERN MAINE

# SENCER Center for Innovation – New England

## Host Institution: The University of Southern Maine

The University of Southern Maine (USM) is a comprehensive university offering baccalaureate, graduate, and professional degrees within the University of Maine System. USM's fundamental mission is teaching, research, and public service for the benefit of the citizens of Maine and society in general. Having developed a number of SENCER courses, and contributed teams to several SENCER Summer Institutes, USM is committed to ethical and engaged science education.

## SENCER at the University of Southern Maine: A Three-Course Honors Sequence

In 2003 a team of five faculty from USM (a virologist, a nurse, a biologist, a philosopher, and an environmental scientist) went to the SENCER Summer Institute to study the way that courses could be "SENCERized." On returning to USM, the Honors Program used the knowledge obtained at the Institute to craft three new colloquium courses that form the core of "the Body Strand" in the Honors curriculum. The first course was HON 103 *Religious and Scientific Perspectives on Human Origins and the Human Body*. The second course, HON 201, *Interdisciplinary Inquiry in the Sciences of the Human Body*, meets the general education science requirements of the university. The last course, HON 203, *Environment, Population, Behavior, and Global Change: HIV/AIDS and other Global Pandemics* develops the students' ability to create an independent semester-long project requiring research that benefits the public. All three courses are open to students from outside of the Honors Program and are interdisciplinary, experiential, science-based; with a service-learning or other civic engagement component.

## Events

### The Future We Create: Science Education for a Scientifically Literate Public

January 8-9, 2008, hosted by Southern Connecticut State University

### SENCER Summer Institute 2007

August 3-6, 2007, hosted by the University of Southern Maine

### SENCER New England Regional Symposium

January 11, 2007, hosted by Springfield College



SENCER Summer Institute 2007 | August 3 - 6 | Portland, Maine



## SENCER Strategies and Opportunities for Meaning and Growth

### Goals

- Promoting engaged learning
- Improving programs for STEM majors
- Strengthening general education
- Promoting ethical science
- Answering the "Why science?" question
- Building an engaged community of scholars
- Connecting learning to co-curricular activities

### Possible Activities

- Conducting needs assessments
- Organizing peer networks and regional symposia
- Sharing ideas, tools and models
- Developing joint programs, courses, and learning communities
- Mentoring faculty colleagues
- Sponsoring inter-institutional courses and other collaborations
- Promoting cost sharing

SCI-New England welcomes involvement by new individuals and institutions. Please contact a member of the Leadership Council or consult [www.sencernet.net](http://www.sencernet.net) for more information.

## Areas of Focus & Expertise

The New England group has broad expertise among its members. The region is strong in three particular interests:

### Environmental change —

Geographical, biomedical, geological, economic, environmental, cultural, and other aspects present challenges to the area.

### Pre-service and in-service teacher education —

We must embrace science teaching as an active, inquiry-based process to adequately prepare our next generation of teachers.

**Health-related issues —** Emerging health problems such as obesity, new pathogens, diabetes, and others require new approaches to teaching and learning among all students.



## SENCER Featured Models from New England Colleges and Universities

### Computer Ethics

Terry Bynum,  
Southern Connecticut State University

### Science on the Connecticut Coast – Investigations of an Urbanized Shoreline

Vincent Breslin & James Tait,  
Southern Connecticut State University

### Issues of Health and Society – Weighing In (Obesity)

Jake Harney & Marissa Cloutier,  
University of Hartford



## Leadership

### Co-Directors

#### Robert M. Sanford

Professor of Environmental Science, Department of Environmental Science and Honors Program  
University of Southern Maine

#### Donna-Jean Fredeen

Dean of the School of Arts & Sciences, Professor of Chemistry  
Southern Connecticut State University

### SCI-New England Leadership Council

#### Vincent Breslin

Associate Professor of Science Education and Environmental Studies,  
Southern Connecticut State University

#### Ellen Faszewski

Associate Professor of Biology, Wheelock College

#### Brian Hagenbuch

Director of the Pine Lake Institute for Environmental & Sustainability Studies, Hartwick College

#### Sarah Kenick

Assistant Professor of Chemistry, University of New Hampshire—Manchester

#### Bob Kuech

Associate Professor of Education, University of Southern Maine

#### Samantha Langley-Turnbaugh

Professor of Environmental Science & Policy,  
University of Southern Maine

#### Susan Mooney

Associate Professor of History & Philosophy of Science, Stonehill College

#### David Morimoto

Division Director, Natural Sciences and Mathematics, Lesley College

#### Fred Rogers

Associate Professor of Geology, Franklin Pierce University

#### L. Kraig Steffen

Associate Professor of Chemistry, Fairfield University

#### Adrienne Wootters

Associate Professor of Physics, Massachusetts College of Liberal Arts

#### Barbara Tewksbury

William R. Kenan, Jr. Professor of Geosciences, Hamilton College  
Member of the National Leadership Fellows Board

SCI-New England initiatives are open to participants around the U.S., but are primarily designed to address the needs and interests of individuals and organizations in **Connecticut, Maine, Massachusetts, Rhode Island, New Hampshire, Vermont, and the Eastern Canadian Provinces.**