

July 2008

National Fellowship Board Elects 76 Leadership Fellows

The National Center for Science and Civic Engagement welcomes the appointment of 76 distinguished educators as SENCER Leadership Fellows this summer. Fellows were chosen by the National Fellowship board, chaired by David Ferguson of Stony Brook University, following an application review. Fellowships honor educators for their exemplary leadership and commitment to the improvement of science, technology, engineering, and mathematics education.

The educators appointed as Fellows will serve 18-month terms, during which they will pursue projects of their choosing to improve undergraduate science and math education. Fellows will serve as leaders on campus to assist colleagues in implementing SENCER approaches both in courses and broadly, across curricula. Each fellow will affiliate with a SENCER Center for Innovation, through which they will be able to connect with colleagues with common interests and contribute to the leadership and direction of the SENCER project. Included below are brief statements of each appointed Fellow's plan for their term.

Jeff Abernathy

Augustana College - Vice President and Dean of the College

Jeff will coordinate Augustana's partnership with SENCER, promote an environment that encourages the development of SENCER courses at Augustana, and explore whether a suite of SENCER-inspired courses might be created by members of the newly formed consortium with Alma, Luther, Illinois Wesleyan, Gustavus Adolphus and Wittenberg that would focus these courses on global issues and situate them in international settings.

Merrilee G. Anderson

Mount Aloysius College - Associate Professor and Chair of Science and Mathematics

Merrilee will work to incorporate active research in undergraduate courses, expand the abandoned mine drainage remediation course and research program, participate in SENCER regional activities (especially in forming associations with neighboring colleges), and secure support for expanding SENCER projects on campus and the region.

Keith H. Aufderheide

Oglethorpe University - Professor of Chemistry and Interim Associate Provost

Keith will assist the national office in developing strategies to promote sustainability of STEM curricular reforms. Keith is also committed to encouraging productive regional collaborations that use undergraduate courses to tackle regional problems (like traffic) and, in so doing, improve both student learning and the community.

Ralph L. Bain

Montgomery College - Adjunct Professor, Chemistry

Ralph plans to support the establishment of SENCER programs at the Rockville Campus of Montgomery College, assist in extending the SENCER program at Montgomery to courses in physics, and contribute to regional SENCER organizations, including offering consultation and mentoring to faculty who desire to improve their science and related courses, laboratory and research programs.

Pinar Batur

Vassar College – Associate Professor, International Studies and Sociology

Stuart L. Belli

Vassar College – Associate Professor, Chemistry

Christopher J. Smart

Vassar College – Associate Professor, Chemistry

As Campus Leadership Fellows, “the Vassar team” plans to promote wider adoption of SENCER principles, through workshops and support of regional activities. They also plan to fully develop and launch the mercury project focusing on mercury contamination in Hudson River fish and local fish consumption as a topic of democratic debate and decision-making.

Mariah H. Birgen

Wartburg College - Associate Professor, Mathematics

Mariah is planning the development of a new SENCER calculus course, in which calculus will be learned through the complex, capacious civic questions it helps us to understand. She also plans to participate in the activities of the SENCER Center for Innovation-Midwest and she will produce a mini-course for the National Collegiate Honors Council national meeting on how to use SENCER ideals to teach honors science.

Gary M. Booth

Brigham Young University - Professor, Plant and Wildlife Sciences

As a SENCER Leadership Fellow, Gary will be expanding his vital outreach activities as he continues to support the development of exceptional science courses, student research projects, and service learning initiatives at BYU.

Arthur W. Bowman

Norfolk State University - Professor, Biology

Art will be continuing his campus-based reform work at Norfolk State and will apply his talents to helping the SENCER program and its regional affiliates to extend the SENCER initiatives in a more organized and sustainable way with faculty leaders at HBCUs who are interested in applying SENCER ideals to the teaching of science.

Margaret A. Brabant

Butler University - Professor, Political Science

Joseph L. Kirsch

Butler University - Associate Provost and Professor of Chemistry

Margaret will focus her efforts on developing workshops for Butler faculty and others interested, exploring more effective ways of assessing the effectiveness of the new initiatives, and preparing a manuscript analyzing the SENCER approach and how it relates to her ten years' experience working with service-learning pedagogy. Joe plans to focus his attention on integrating civic engagement ideals and activities into Butler's new general education program and to aligning and merging those new ideas with what Butler has been doing successfully up to now. Joe and Margaret are both committed to sharing what they are learning at Butler with the SENCER community and others in the region and around the nation.

Sherryl A. Broverman

Duke University - Associate Professor of the Practice, Biology

Sherryl will continue to coordinate Duke's association with our STEM education reform project, support regional dissemination of SENCER ideals and programs, provide campus consultations, and help expand SENCER's global programming.

Virginia G. Carson

Chapman University - Professor, Biological Sciences

As a SENCER Leadership Fellow and member of the SENCER Center for Innovation Leadership Council, Virginia will help plan another SENCER regional (California) dissemination and faculty development conference and will be expanding her course development work to include a focus on pharmacology and drugs.

Katayoun Chamany

Eugene Lang College, The New School for Liberal Arts - Associate Professor, Biology

Katayoun will be helping to expand the SENCER course offerings at Eugene Lang College, focusing the SENCER community's attention on issues involving stem cell research and policy, contributing to the backgrounder series and other dissemination activities, and exploring connections in global education.

Nageswar Rao Chekuri

Woodbury University - Professor of Physics and Chair, Mathematics and Natural Sciences

Rao has been a leader Woodbury's efforts to develop a model transdisciplinary studies program. His vision and energy have supported a broad adoption of SENCER ideals on campus. One focus of the Woodbury SENCER team has been on the complex set of issues involving traffic—a very promising new area of concentration for SENCER efforts. Rao will assist scholars who are interested in applying the SENCER ideals to pressing civic issues.

Peter L. Conrad

SUNY Plattsburgh - Professor and Chair, Biological Sciences

Peter will be devoting considerable attention to the intersection of ethics and science, helping to establish a series of new courses that pursue study at this intersection, and helping colleagues—through consultations and writing projects—who want to use the civic challenges of science and ethics as vehicles for improving instruction and strengthening democratic institutions.

Maria A. Curtin

Stonehill College – Professor, Chemistry

Maria will develop strategies to engage and support other faculty members who wish to incorporate SENCER ideals in their courses. She will coordinate Stonehill's partnership with the SENCER program and work to consolidate a set of courses, resources and activities that will enrich and further strengthen Stonehill's academic program.

James Daly

Purchase College – Associate Professor, Biology

Jan R. Factor

Purchase College, State University of New York – Professor, Biology

Jan and Jim will participate in regional activities, offer consultations to others on design and implementation, coordinating Purchase's assessment efforts with others with similar interests, and preparing materials on the Purchase College project for publication and potential use by other members of the SENCER community and those committed to improving STEM learning.

Monica A. Devanas

Rutgers University - Director, Faculty Development and Assessment Programs

Monica will coordinate Rutgers' involvement with the national project through her work as a co-director of the SENCER Center for Innovation – Midatlantic, consult with colleagues from other campuses who are interested in developing effective new STEM courses, and will offer guidance to the national project as it develops new initiatives and strengthens existing programs.

Jacqueline Dewar

Loyola Marymount University – Professor, Mathematics

Suzanne L. Larson

Loyola Marymount University – Professor, Mathematics

Jackie will be disseminating her innovative work in assessment, the scholarship of teaching and learning, and in mathematics education, generally, to the broader SENCER community. Suzanne will be expanding her work to focus on applying SENCER ideals to courses for more mathematically-sophisticated students. Both Suzanne and Jackie will be assisting the SENCER program to build alliances with the national mathematics education community.

Lawrence K. Duffy

University of Alaska Fairbanks – Dean, Graduate School

Larry will continue to disseminate SENCER ideals helping to create 'Arctic-focused' SENCER courses and programs in and about the 'Arctic North'— a critical and strategically important but often overlooked part of our globe. He is working to get SENCER ideals established within the UAF Honors Program and to disseminate SENCER to and encourage SENCER projects at the rural community colleges in Alaska.

Juli T. Eflin

Ball State University - Professor, Philosophy

Juli intends to write about and document the Ball State experience with the view to helping others involved in institutional reform. She will also help the SENCER community think about how to structure our efforts to both promote program sustainability.

Timothy E. Elgren

Hamilton College - Professor, Chemistry

Tim wants to expand his SENCER-connected work by creating a stand-alone laboratory course at the intersection of chemistry, biology and earth science focused on environmental analysis. If this project is successful, Tim hopes to propose it as a national model. He also plans to forge new collaborations at Hamilton and with colleagues around the country who share similar goals for improving science learning and connecting that learning to important civic questions.

Karen J. Erickson

Southern New Hampshire University – Dean, Liberal Arts

Karen plans to work with the SNHU team to expand the number of SENCER-inspired course offerings, coordinate institutional partnerships with SENCER, consult with others, and help the national program think about and design programs to, in Karen's words, 'educate to improve the human condition.'

Marion F. Fass

Beloit College - Professor, Biology, Health and Society

Marion sees her role as helping Beloit and sister institutions to develop courses that address public health issues in the community (demonstrating how a public health focus applies to learning cell and molecular biology) and to complete a manuscript that will make what she has learned available to colleagues in the US and abroad.

Ellen E. Faszewski

Wheelock College - Associate Professor, Biology

Ellen is committed to developing new courses and curricula that embrace civic engagement, providing workshops and mentoring for colleagues, bringing SENCER ideals to pre-service elementary teacher education initiatives, and continuing her involvement with the network of colleagues that comprise the SENCER Center for Innovation—New England.

Robert W. Franco

Kapiolani Community College - Professor, Pacific Anthropology

Bob will be helping to strengthen SENCER programs at community colleges, places that are critically important to the future of STEM education in the United States. He is also writing a backgrounder on service learning and its application to science education.

DonnaJean A. Fredeen

Southern Connecticut State University - Dean, School of Arts & Sciences

DonnaJean intends to focus her efforts on the development of innovative courses for first year students that emphasize science learning and civic engagement, completing her backgrounder on administrative strategies for implementing science reform initiatives, and providing consulting and mentoring to other academic leaders who desire to institute SENCER-connected programs on their campuses, including those who want to expand these new pedagogies and connections to civic engagement to courses in fields the social sciences, arts and humanities.

Steven A. Freeman

Iowa State University - Assistant Director, Center for Excellence in Learning and Teaching, and Associate Professor, Engineering

Steve plans to help increase the involvement of engineers in the SENCER program, engage additional faculty members at ISU in connecting science education to civic challenges, conduct faculty development workshops and consultations, and support regional networks and activities.

Michael R. Gabel

George Mason University - Associate Professor of Integrative Studies and Mathematics

Randy will be exploring how helping students learn classical mathematics through enabling them to 'teach' this math to their peers can be a form of civic engagement that qualifies as practical and useful, in the SENCER tradition, not because it is tied to a specific contemporary civic question, but precisely because students can practice and use it.

Ellen S. Goldey

Wofford College – Professor, Biology

Ellen plans to work to support the expansion of SENCER courses at Wofford and to assist peers, on a regional and national basis, in developing more effective assessment strategies designed to enhance achievement and deepen learning.

Richard Grallo

Metropolitan College of New York - Associate Professor, Applied Psychology

Heide Hlawaty

Metropolitan College of New York - Chair, Liberal Arts Studies

Heide and Richard will be working to revise an MCNY earth science course along SENCER lines, expand SENCER projects in the area of graduate teacher education programs, and participate in regional activities, especially in the New York metropolitan area.

Paul Grobstein

Bryn Mawr College - Eleanor A. Bliss Professor of Biology

Paul plans to help develop a new SENCER courses at Bryn Mawr, form new collaborations and consult with faculty at other institutions, and help the SENCER national office design strategies to increase communication and disseminate resources that support significant change.

Brian E. Hagenbuch

Hartwick College - Director, Pine Lake Institute for Environmental and Sustainability

Brian will focus on collaborating with members of the SENCER community interested in sustainability education and how to integrate the scientific and civic challenges and dimensions of sustainability into the college curriculum. He is interested in developing his own work at Hartwick into what can become a SENCER National Model and will continue to be engaged in mentoring and consultation regionally and with others interested in sustainability.

Sarah A. Haines

Towson University - Associate Professor, Biological Sciences

Sarah will provide faculty development seminars at Towson, pursue the design and implementation of courses that would promote ocean literacy, and assist the national office and others interested in developing new and robust SENCER projects focused on teacher education.

Tim Haresign

Richard Stockton College - Associate Professor of Biology

Tim plans to work to develop effective collaborations with the new and expanded pre-service teacher education program at Stockton, to continue with his regional consultative and mentoring activities, and to focus attention on effective assessment (both at the institutional level and in connection with the Consortium for the Assessment of Student Achievement, a group sponsored by SENCER and the National Center for Science and Civic Engagement).

Yvonne Harris

Harper College – Dean, Mathematics and Science

Yvonne will be working with the SENCER Center for Innovation-Midwest to instantiate the TEIP project in colleges in the Chicago area (including the possible development of a regional student leadership camp), continuing her consultative work with colleagues around the country, and connecting colleagues engaged in science reform initiatives at Harper with SENCER with members of the SENCER community.

Frank Hubacz

Franklin Pierce University – Professor, Chemistry

Frederick S. Rogers

Franklin Pierce University – Chair, Natural Sciences, and Associate Professor, Geology

Frank and Fred will offer consultation to colleagues at Franklin Pierce who wish to re-design their courses, work to expand regional activities, pursue new collaborations (most notably with the Will Steger Foundation), and bring greater attention to the SENCER approach at meetings of national organizations dedicated to improving science teaching.

Ben Hutchinson

Lipscomb University, Dean, College of Sciences

Ben plans to support faculty colleagues who are developing SENCER courses at all levels and to work to expand partnerships with other institutions in middle Tennessee to design science education projects focused on regional issues.

Judith M. Iriarte-Gross

Middle Tennessee State University – Professor, Chemistry

Martha R. Weller

Middle Tennessee State University – Professor, Physics and Astronomy

Mari and Judith plan to continue their course development efforts, to provide consultation to faculty colleagues who want to develop innovative courses, to work to strengthen regional

collaborations, and to explore effective ways to encourage students to enroll in SENCER courses early in their college careers.

Trace Jordan

New York University - Associate Director, Morse Academic Plan

Trace plans to focus his attention on a maturing set of questions related to assessing SENCER's long term impact on learning. Working with colleagues who are similarly interested, he hopes to develop, pilot, evaluate and report on new assessment strategies.

Cindy C. Kaus

Metropolitan State University - Associate Professor, Mathematics

Cindy will expand SENCER work at MSU, serve on the leadership council for the SENCER Center for Innovation-Midwest, and continue to engage adjunct faculty at MSU in these innovations and reforms. On the national level, Cindy will be serving as a Visiting Mathematician at the National Center for Science and Civic Engagement next year, during which time she will develop strategies and carry out projects to increase the participation of mathematicians and mathematics educators in SENCER.

Cynthia A. Klevickis

James Madison University - Professor, Integrated Science and Technology

Cindy will be focusing attention on designing strategies to encourage students to take science courses early in their academic careers and she will bring the cohort-based interventions she has designed to the attention of the wider STEM reform community through publications and dissemination at regional and national gatherings.

Erica F. Kosal

North Carolina Wesleyan College - Associate Professor, Biology

Erica plans to pursue this inquiry into the student motivation, to disseminate SENCER ideals on campus (with special attention to forming collaborations with teacher educators), and to expand her collaborations with colleagues at other institutions. She expects that these collaborations will lead to the development of new intercollegiate, transdisciplinary courses, like the one she helped develop with colleagues at Meredith College and USC-Sumter.

Keith E. Krumpe

UNC Asheville - Professor and Chair of Chemistry

Keith co-directs the SENCER Center for Innovation—South, serves as a senior associate, and is a leader in SENCER's efforts to apply what we have discovered about how to improve learning in courses for those majoring in the science disciplines. He will be helping us focus on broad curricular reform in general, and reforming pre-medical preparation, in particular.

Joseph C. Liddicoat

New York University - Adjunct Professor of Science

Joe will be helping to organize regional meetings to disseminate SENCER curricular models and pedagogical practices, and he will help coordinate the development of additional SENCER offerings at NYU and collaborating institutions.

Phillip Mason

Fairmont State University - Vice President for Research and Graduate Studies

Phil will support new course development at Fairmont, offer consultations to colleagues from other campuses in the region, and advise the national program on ways to strengthen and make more durable the reforms that have already begun.

Woody L. McKenzie

Lynchburg College - Associate Professor, Education

Woody plans to work with colleagues to expand interdisciplinary offerings at Lynchburg, explore the use of environmental issues as themes for his own courses, and disseminate SENCER ideals and programs to science educators, including public school teachers, in his part of Virginia.

John A. Mecham

Meredith College - Professor, Biological Sciences

John has received NSF support for a multi institutional collaboration that globalizes science learning by focusing on contemporary public health and civic challenges in Africa. As a Fellow, John will support SENCER's efforts to expand global partnerships, enhance teacher education programs, and support reforms on the Meredith campus and in the region.

Julia K. Metzker

Georgia College & State University - Assistant Professor, Chemistry and Physics

Julia will focus on forging collaborations to design compelling interdisciplinary courses to meet new core curriculum standards in Georgia, and she will coordinate SENCER dissemination activities at GSCU.

David C. Morimoto

Lesley University - Division Director, Natural Science and Mathematics

David plans to expand civic engagement activities as a substantive component in a wide variety of courses, provide faculty development opportunities for colleagues (at Lesley and other colleges in the region) on the SENCER ideals and pedagogies, and develop longer term community-focused research activities that will serve to improve student learning and produce knowledge of use to the local community and the larger region, as well.

Lisa A. Pike

Francis Marion University - Associate Professor, Biology

Lisa will be expanding her SENCER work with a focus on pre-service teacher education and applying new pedagogical approaches to the "Environment in Context" initiatives in South Carolina."

John M. Pratte

Arkansas State University - Chair and Professor of Physics

John will work to expand the scope of SENCER course offerings at ASU, provide consultations to other faculty within the region, and focus his attention on assessment activities, with the university and as part of a national consortium supported by SENCER.

Sandra S. Seidel

University of Virginia - Assistant Dean and Associate Professor, Biology

Sandy will be introducing the SENCER program to colleagues at UVA, engaging with the SENCER regional center for innovation, and developing a new course for UVA based on SENCER principles. Sandy believes that her renewed association with SENCER can be beneficial to the University as it implements the strategic initiatives of the Commission on the Future of the University, particularly those goals of connecting academic life to public service through service learning and community-based research.

Robert Seiser

Roosevelt University - Assistant Professor, Biology

Bob is planning to work for the wider adoption of SENCER courses, develop new curricular materials and resources, support regional collaborations (especially those promoting articulation

with two-year colleges), and to revise Biology 113 so that it has the potential to become a SENCER National model.

Richard D. Sheardy

Texas Woman's University - Professor and Chair, Chemistry and Physics

Dick plans to collaborate with colleagues to develop a new partnership with the local school district to involve students in learning and civic engagement and to serve as a consultant to faculty who want to apply SENCER ideals in non-science disciplines, including the arts and business.

Gail M. Simmons

College of Staten Island - Dean of Science and Technology

Gail will continue to coordinate CSI's participation with SENCER and she will use her considerable communications skills and gifts of persuasion to promulgate SENCER reforms at sister institutions and through research and writing projects assessing the impact of SENCER on professional practice and teaching.

Garon C. Smith

The University of Montana - Professor, Chemistry

Garon is a deeply serious educational innovator who is committed to reducing the alarming attrition of good students from science courses. As a Leadership Fellow, Garon will help connect SENCER to the National Conferences of Undergraduate Research (NCUR) program, whose national meeting he will be chairing in 2010.

Gale H. Starich

Brenau University – Dean, School of Health and Science

Gale intends to forge creative collaborations to apply what she calls the “SENCER ethos” to non-traditional instructional platforms, such as on-line instruction.

Eleanor Sterling

American Museum of Natural History – Director, Center for Biodiversity and Conservation

Eleanor plans to introduce SENCER to new colleagues in the Department of Ecology, Evolution and Environmental Biology at Columbia, with the view to developing SENCER courses. She will also connect the work of AMNH to SENCER regional and national communities, encourage greater collaboration between SENCER and NCEP and with AMNH's new program 'Enhancing Diversity in Conservation Science Initiative' (EDiCon). Eleanor plans to create and disseminate new curricular materials and scholarship, especially in relation to active teaching techniques.

Cheryl C. Swift

Whittier College - Professor, Biology and Environmental Science

Cheryl plans to coordinate Whittier's participation with the SENCER program, develop additional courses that teach science through issues of global consequence, support regional efforts with the SENCER Center for Innovation-West and in connection with a consortium of colleges that have agreed to limit carbon emissions, and provide workshops and other consultation on the SENCER approach to interested colleagues at Whittier and other institutions.

Richard J. Thompson

The College of Saint Rose – Dean, Math and Science

Richard will guide the development of additional SENCER courses, provide mentoring and development activities for new faculty members, and strengthen collaborations designed to improve the preparation of future science teachers.

Mary E. Tiles

University of Hawaii, Manoa - Professor, Philosophy

Mary will be collaborating with a colleague to apply SENCER ideals to an economics course, working with the Climate Change Commission to broaden academic attention to integrate learning, and helping the national SENCER community focus on climate change and sustainability as a subject for expanded SENCER course and program efforts.

Iris. J. Turkenkopf

Mount Saint Mary College - Vice President for Academic Affairs

Iris will be promoting the wider adoption of SENCER ideals, developing strategies for improving general education, and consulting with colleagues, locally and nationally, who share similar goals for student achievement and institutional advancement.

Gregory S. Van Doren

Heritage University - Assistant Professor, Physical Sciences

Greg will be developing a new cross-disciplinary chemistry and art course (focused on natural dyes and fabric art), helping other faculty adopt SENCER pedagogies in their courses, and serving on the leadership council for the SENCER Center for Innovation-West.

Greg R. Wahl

Montgomery College - Associate Professor, English

Greg will work closely with colleagues in the reading and writing centers to continue the development of SENCER-related writing projects and, on a national basis, he will work with other community college colleagues to explore using SENCER principles to improve achievement in developmental course taught at the college level.

Marcia Walsh

Merrimack College - Associate Professor, Health Sciences

Marcia will be promoting wider adoption of SENCER principles in undergraduate courses, engaging and mentoring faculty, assessing the special learning needs of pres-service teacher education majors, and connecting with and supporting SENCER's regional activities in the New England.

Patricia Wilson

La Salle University - Assistant Professor, Psychology

Pat plans to develop a new course on addictions and a modification in her social psychology course for this fall to take advantage of the up-coming election as a civic event through which basic psychological principles may be taught and learned. She will continue her campus-based consultations to interested faculty as well as her service in the regional leadership networks.

Tom Wood

George Mason University – Associate Professor, New Century College

Tom plans to provide consultation to others who wish to develop learning communities reflecting SENCER goals and ideas to strengthen community partnerships and experiential learning. He will also help guide the development of additional SENCER courses at GMU and work to strengthen partnerships with community colleges, with the view of expanding access to the conservation studies program at the Smithsonian Institution's Conservation and Research Center.

Adrienne H. Wootters

Massachusetts College of Liberal Arts - Associate Professor, Physics

In addition to continuing her work to expand the influence of SENCER ideals in courses and programs at MCLA, Adrienne plans to work with collaborators from around the country to focus on general education and K-12 teacher preparation and to pursue some research questions on the correlation of student self-assessment of skills and knowledge with the assessments made by teaching professionals.