

# SENCER E-Newsletter

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SENCER  
SCIENCE EDUCATION FOR NEW CIVIC ENGAGEMENTS AND RESPONSIBILITIES

Greetings from the SENCER National Office. We have very good news! We're delighted to announce that the SENCER SALG is now ready for you to use. This issue features a collection of articles on the SENCER SALG, an easy-to-use assessment instrument. The faculty who helped us develop the SENCER concept insisted that a national project's value would be greatly enhanced by having a validated, shared instrument that would help improve courses and demonstrate the value of the SENCER approach. SENCER SALG answers that call. We invite you to use the SENCER SALG and look forward to having your appraisal of its value. Contact us at [SENCER@aacu.org](mailto:SENCER@aacu.org).

## SENCER SALG Ready For Use: Innovative Web-Based Instruments Engage Students In Assessing Their Learning Gains

The web-based SENCER Student Assessment of Learning Gains (SALG) has been finalized and is ready to be used by SENCER faculty and their students.

The SALG allows students to rate how much specific activities in SENCER courses help their learning. The assessment tool also asks students to report on their general level of science skills and interests, as well as the civic activities they engage in.

The primary purpose of the SALG is to provide instructors with useful and timely information about their courses. Students rate how much class activities such as lectures, discussions, or labs help their learning. Instructors have found this information to be helpful in altering and improving instruction. The SALG also provides a snapshot of student skills and confidence at the beginning and end of courses. This allows instructors to gauge the effectiveness of their instruction in specific areas. The SENCER SALG will also inform the national assessment of the SENCER program.

The SALG is unlike the traditional Faculty Course Questionnaire in that it does not ask students to rate the competencies of their instructors. It is also not meant to be used as a test or quiz.

One of the benefits of using the SENCER SALG over a paper and pencil survey is its ability to provide instructors with almost immediate results. Because the SALG is web-based, results can be generated and sent to instructors electronically in a usable form almost overnight.

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Reminder: SENCER Summer Institute 2004 Applications  
Are Now On Line:

[www.aacu.org/SENCER/summerinst04.cfm](http://www.aacu.org/SENCER/summerinst04.cfm)  
Deadline for submission: February 20, 2004

SENCER is a national initiative of



## SENCER SALG Ready For Use (Cont.)

While we are asking instructors to use the SALG during the fall and spring semesters, the SENCER SALG is still open to revisions. We welcome any comments on the SALG, and any ideas for new items or new sections. We also want to hear from you if you encounter any problems accessing or using the SALG.

The SENCER SALG has “pre” and “post” forms. The two forms are almost identical and allow before and after comparisons for student ratings of science skills and interests. In addition to these areas, the post version of the SALG allows students to rate course activities.

During the rest of the fall semester, instructors and their students can use the “post” version of the SALG. Pre and post versions can be viewed at:

[http://work.wcer.wisc.edu/salgains/view/SENCERSALG\\_FALL03\\_POST.htm](http://work.wcer.wisc.edu/salgains/view/SENCERSALG_FALL03_POST.htm)

[http://work.wcer.wisc.edu/salgains/view/SENCERSALG\\_SPR04\\_PRE.htm](http://work.wcer.wisc.edu/salgains/view/SENCERSALG_SPR04_PRE.htm)

[http://work.wcer.wisc.edu/salgains/view/SENCERSALG\\_SPR04\\_POST.htm](http://work.wcer.wisc.edu/salgains/view/SENCERSALG_SPR04_POST.htm)

(Important: these pages are just for viewing – see directions in the Box on Page 3 for using the SALG this semester.)

After January 15, 2004, instructors can use both the “pre” and “post” versions. Currently, instructors can customize the SALG by adding their own items by emailing new questions to our SENCER SALG Coordinator, Susan Lottridge (formally Daffinrud) at [susanlottridge@hotmail.com](mailto:susanlottridge@hotmail.com). After January 15, instructors will be able to add new items directly through the Web site.

We strongly recommend that instructors administer the SALG in one of two ways:

- As an in-class activity in a dedicated computer lab -- instructors take their students to a computer lab and have them fill out the survey.
- As a required activity for students outside of class -- instructors can assign the SALG as homework and students use their own computers.

We have found that these two strategies greatly enhance response rates. The pre-SALG takes around 10-15 minutes to administer, the post-SALG 15-20 minutes.

Feel free to contact Tim Weston of the assessment team if you have any questions or concerns about the SALG, or want to make any suggestions for revisions. His email and phone are [westont@colorado.edu](mailto:westont@colorado.edu), and 303-735-2687. We look forward to hearing from you!

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# How To Use SENCER SALG

The on-line SENCER SALG website is ready for use for the Fall 2003 classes.

The steps for using the SENCER SALG in your SENCER course are outlined below.

## Step One:

Review the current SENCER SALG at the following location:

[http://work.wcer.wisc.edu/salgains/view/SENCERSALG\\_FALL03\\_POST.htm](http://work.wcer.wisc.edu/salgains/view/SENCERSALG_FALL03_POST.htm)

## Step Two:

Decide whether you'd like to add items to the instrument. You are welcome to add items after each question (where the 'Instructor Add' statement appears) and you can add new items at the end of the instrument.

## Step Three:

Contact Sue Lottridge (Daffinrud) at [susanlottridge@hotmail.com](mailto:susanlottridge@hotmail.com) or at (540) 435-6751 to let her know:

- a. The size and name of your SENCER class
  - b. The date you need the instrument to be available for your students
  - c. Any new questions you'd like to add to the SENCER SALG
- Please allow a few days to give her time to prepare the instrument for your class.

Sue will also help with the following:

- a. She will make your requested modifications to the SENCER SALG.
- b. She will work with you to decide on appropriate student identifiers.
- c. She will prepare a short document outlining how students can access the instrument (it is best if you email the students these directions so they can click onto the survey site).

## Step Four:

Notify Sue that you are finished collecting the data.

Sue will send you the raw data (excluding student identifiers) and a short report of descriptive statistics for each question with a few days.

## Putting Faces to Names...



Tim Weston presenting at SSI 2003



Sue Lottridge (Daffinrud) at SSI 2003

## Structural Support for SENCER Reform

In this regular feature of the E-Newsletter we discuss strategies to support improving science education. The SENCER SALG is a major initiative designed to provide structural support. It offers a new dimension in assessment. Why did we choose it? What makes it worth your attention? How do we know it has any validity? As the SENCER SALG is used, we will be accumulating more and more evidence to answer this last question. The article below, based on an analysis provided by Dr. Elaine Seymour, suggests some answers to the first two questions. We thought you would find interesting a brief history of the SALG and how it fits into the larger national effort to assess and evaluate learning.

### A Brief History of the Development of the SALG and SENCER-SALG

The Student Assessment of their Learning Gains (SALG) instrument was developed in response to the expressed need of classroom innovators for a valid student evaluation instrument. Faculty sought an instrument that allowed them to make adjustments and improvements to their teaching methods. They also needed an instrument that allowed them to assess learning objectives and related class activities. They wanted students to focus on how well specific class features and activities enabled their learning. This was especially critical for innovative classrooms where faculty were concerned about classroom work being judged by inappropriate criteria.

The SALG instrument was originally developed to meet the needs articulated by participants in the ChemLinks Coalition and the Modular Chemistry Consortium (now allied as “ChemConnections”) that formed part of the National Science Foundation’s Systemic Change Initiative in Chemistry. Data collected as part of the formative evaluation of ChemConnections’ work also informed the development of the SALG. This included interviews with faculty developing and testing the chemistry modules, and with 345 students interviewed in a matched sample of modular and more traditionally-taught introductory chemistry classes at eleven participating institutions.

The interviews examined two broad categories of assessment: assessments of course pedagogy and of teacher performance (expressed in terms of what students “liked”), and assessment of their own *learning gains* from aspects of the class. Examples of student likes or dislikes were expressed in phrases like those given here:

“I thought the teacher was very organized and presented the material well,”

“The tests were fair,”

“The teacher was very approachable,” and

”Some of the demonstrations didn’t work well.”

Although statements like these may imply that teacher characteristics such as organization, fairness, approachability, and technical competence have some level of impact on student learning, the connection is unstated and offers limited feedback about what really enables learning.

Students’ observations on “what they liked” were also less useful than their estimates of “what they gained.” Analysis of student judgments of faculty performance revealed that when all students’ observations were compiled (for *both* the modular and the comparative classes) positive and negative comments about what students liked were almost evenly split. Neither group of faculty got a clear picture of the overall utility of their teaching when they were judged on the perceived quality of faculty’s professional performance.

This finding reflects a common faculty experience; asking students what they “liked” about their classes (especially where no criteria for these judgments is offered) provides little useful information to faculty (or their departments) about the impact of their classroom work on students.

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## A Brief History of the SALG and SENCER-SALG (Cont.)

By contrast, when all observations about learning gains were totaled and divided into positive (things gained), negative (things not gained), and mixed reviews (qualified assessments of gain), the teachers of both the modular and comparative classes got clear overall evaluations from their students. Approximately 57 percent of the observations for both types of class were positive, 31 percent were negative, and 12 percent were “mixed.” What the innovative and more traditional teachers gained in feedback on their work differed by the nature of the course pedagogy. However, both positive and negative learning gains statements proved useful to the module developers and testers and resulted in improvements to their work.

The first version of the current SALG instrument was developed in 1997 and was successfully piloted in classes in three participating chemistry departments. With a grant from the Exxon-Mobil Educational Foundation, the SALG was tested with a sample of 28 modular chemistry classes and then by wider groups of ChemConnections faculty and others. Questions were initially derived from modular learning objectives. However, as faculty in other disciplines began to use the instrument it became clear that many of these learning objectives were widely shared across the sciences and other disciplines. Question groupings explored concepts and skills, application of knowledge, making connections with other bodies of knowledge, use of resources, appreciation of the subject, and estimates of what students will carry away from the class.

The instrument’s structure focuses on questions about how much particular aspects of a course enable student learning. From the outset, students were asked to respond to the instrument questions on a five-point Likert-style scale. Likert scales are commonly used, both for institutional classroom evaluation instruments, and in questionnaires exploring degrees of agreement or disagreement with position statements. A “not applicable” option, and questions inviting students’ write-in comments were subsequently added.

In 1998, with funding from the Exxon-Mobil Educational Foundation, Sue Lottridge of the LEAD Center at the University of Wisconsin-Madison began to develop a website whose purpose was to streamline the use of the SALG paper instrument. The website offers faculty accessibility and easy modification allowing students to complete the instrument on-line. The website automatically provides the teacher with both raw data and a set of standard survey results. This resolves implementation problems related to compiling results, and allows easy dissemination of the SALG instrument to many users. Used as a formative tool (to revise courses), the online SALG instrument can easily be used mid-semester as well as at the end of a course.

By December, 2002, the site had 2043 registered users and 2019 registered courses. Currently, 649 registered courses are linked with 293 SALG users. The majority of these users registered only one course (167), and the vast majority (245) registered three or fewer courses. A total of 18,084 students completed surveys in these 649 courses.

In 2001, the SENCER organizing group, led by David Burns and Karen Oates, asked Elaine Seymour and Sue Daffinrud to help them to develop core versions of the online instrument that addressed learning objectives, class Activities, and items about science skills and interests that are shared by SENCER courses and their users. A significant innovation sponsored by the SENCER project in addition to the customization of the SALG for SENCER courses is the development of “pre” and “post” versions of the instrument. This innovation will allow instructors to measure changes on certain critical indicators over the course of each semester. During the last year, pilot versions of these instruments have been tested with limited samples of SENCER course teachers. This fall and in the coming spring, the resulting beta versions of the instrument will be used with a larger sample.

*-Based on a report prepared by Dr. Elaine Seymour, University of Colorado at Boulder*

# Field Report: Using the Pre- and Post SENCER SALG HINTS for SUCCESS

By Karen Kashmanian Oates (George Mason University; Co-PI, SENCER)

Those of you who've been involved with SENCER for a long time have no doubt heard David and me talk a lot about the SALG, and especially the SENCER SALG. I've been as anxious as anybody about getting SENCER SALG up and going...and now it is!

SENCER has sponsored the development of a two-part, online SENCER SALG—a pre-course version to be administered at the beginning of a course, a post-course version, to be administered at the course's conclusion. Both versions of the SENCER SALG are now available for all of us to use.

As someone who wants others to use this very promising instrument, not only did I want to use it myself, I felt obligated to do so. I am here today to report to you that I am glad I did! I hope you will find the SENCER SALG as useful as my colleagues at George Mason University and I have.

My colleagues and I piloted the pre-course version for a learning community we're teaching. Both the ease of administration and the incredibly fast turn-around of results provided a terrific experience for both the faculty and students involved in the pilot. A sample of the students' reaction to talking the SENCER SALG revealed some interesting and beneficial consequences to administration of this survey (see student comments below). We're now looking forward to having the end-of-semester results.

Through our experience using the pre-course SENCER SALG with 121 students, we'd like to offer you some **Hints for Success** based on what worked for us.

- Write the administration of the Pre-course SALG into your course syllabus as homework for the first day of class. This is entirely consistent with the recommendations being made by national panels to embed assessment in what we are doing. All of our students were required to go to a university computer lab or log on from home within a set time period and complete the survey.
- Contact Sue Lottridge (formerly Daffinrud) at [susanlottridge@hotmail.com](mailto:susanlottridge@hotmail.com), 540-435-6751, to help set up any customized questions and to give you the details as to exactly how the students can access the instrument online. Sue also helped us decide what ID the students would use if we wanted pre and post comparison by students rather than our usual pre and post class comparisons.
- Prepare a one-page instruction sheet to hand out to students on how to access the SENCER SALG. Students can take these instructions with them to the computer lab or you can have the instructions written into the course syllabus.
- Link the Pre-course SENCER SALG (and then later the Post-course SENCER SALG) directly to your course website so the students just need to click on the hotlink and get started. The Link to the Pre and Post SENCER SALG is provided on the SALG website.
- Explain to students why you are requiring them to take this survey and assure them they will not be graded on their answers. Focus on the fact that they are contributing to a body of knowledge about student learning and that you will use the data to make improvements for future students. We let our students know how interested we were in learning from them and that they had a chance to help inform how future offerings of the course can be improved.
- Require students to e-mail you after completing the SALG or you can have them identify themselves (as we did) at the SALG login site by using our initials followed by a 4 digit code that they need to record and remember for the post course comparisons. We had the students write their login code in their notebooks.

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## HINTS for SUCCESS (Cont.)

Once you have given students the appropriate time to complete the SENCER SALG, the data will be immediately provided to you. Please notify Sue when you are finished collecting data.

Assign a specific time for the Post course SENCER SALG, put it in the course syllabi and notify Sue at least a week ahead of time if you would like her assistance.

Here is a small sampling of what we learned from our students, gleaned from the report provided by Sue Lottridge:

- 34% of our students felt confident discussing science concepts with friends & family.
- 12% believed they could confidently determine differences between science and pseudo-science.
- 40% claimed they could make an argument using scientific evidence.
- 57% took the course because it fit into their schedule.
- 23% of the students said they were interested in majoring in a science related field.
- 32% reported being very interested in reading about science and its relation to civic issues.
- 31% said they were interested in taking another science course after this one.
- 37% claimed to be confident they could pose questions that can be addressed by collecting and evaluating scientific evidence.

### Students Respond to SENCER SALG

Perhaps more significant right now than these results is what students told us about using the SENCER SALG. The comments below give some indication of just how valuable they found using SENCER SALG, but, beyond that, how important it is to them that we give evidence of our interest in their learning. With their permissions, I am presenting the comments of twelve students in their own voices.

“I found the survey to be a helpful insight for what the course would be like. Taking the survey itself was fairly effortless and it allowed me to reflect on my abilities in science so that I knew what to work on during the course. I am interested to see how I may have improved when I take the post course survey.” - Ann Reynolds

“I found the SENCER SALG very helpful, and well worth the time to take it. This not only helped the professors, but me as a student as well. This helped me reflect on my experiences and feelings towards science. The survey also gave me the feeling that the course was about me and how I learn best. I would recommend any professor to give this to students for not only their benefits, but the student’s as well!” - Don'Lyn Feather

“When filling out this survey, I thought carefully about answering the questions, and after reading over them I realized how essential this information is for professors to know about their students. It gives them an understanding for how the student learns best, and how they will reach the professor’s standards for grades. It really helps out both the professor and the student. I think each class should offer a survey like this one to help everyone in the classroom out.”  
-Jennifer Schnizler

“The SENCER SALG online examination was a good experience for me. It showed that the faculty actually had an interest in what kind of background I had in science and how comfortable I was with it. This helped to reinforce the idea that this is a course tailored to the student's needs and knowledge, and that the professors would have at least some understanding of our capabilities before we really got into the unit.” -Sean Rowley

“I feel that the SENCER SALG was a very easy task for NCLC 120 students to do to get a first glimpse of the course. I think that it helps the professors understand what types of students they are working with based on their background so that the NCLC 120 faculty can better teach their courses. Because NCC is interdisciplinary, these teachers are not always working with students who have math and/or science-based backgrounds. I feel that it benefits the students because of this, having the faculty know what’s coming to them and how they may want to express their knowledge thorough the course.” - Elizabeth Ventura

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# SENCER Dissemination and Opportunities

## SENCER Co-Sponsors New York PROJECT KALEIDOSCOPE Meeting

During the weekend of November 7 – 9, 2003, New York University and New School University jointly hosted a meeting entitled “Shaping General Education Programs Focused on Quantitative and Scientific Literacy.” This event was one of ten national meetings that serve to celebrate the 10th Anniversary of [Project Kaleidoscope](#)’s (PKAL) “Faculty for the 21<sup>st</sup> Century” network, and was co-sponsored by SENCER. The goal of the meeting, which attracted more than 130 speakers and participants, was to share educational resources, course curricula, assessment methods, and best practices for engaging all students with the challenge of critically evaluating quantitative and scientific information.

Dr. George Campbell, president of Cooper Union, delivered the plenary address. Campbell shared his vision of a well-trained engineer for the 21<sup>st</sup> century, one who would exhibit not only technical training but also an appreciation of culture and history. According to Dr. Campbell, somebody with this training would be better able to understand the human dimension of engineering and its impact on society.

On Saturday, the meeting contained six tracks of breakout sessions dealing with assessment, partnerships, mounting programs, quantitative reasoning, civic action, and linking science and the humanities. Monica Devanas and Tom Wood provided an overview of the SENCER project. Karen Oates offered a display of materials at the poster session.

As a follow-up to this meeting, educators in the region are forming a New York Regional PKAL network to foster further dialog and exchange of ideas. This will be an ideal framework for establishing connections between PKAL and SENCER.

*- Reported by Trace Jordan, Assistant Director, Morse Academic Plan, New York University*

## Calendar: Upcoming Meetings of Interest to the SENCER Community

The SENCER National Office and Network can help you present SENCER sessions at your disciplinary association’s annual meeting and at other meetings. Please contact us for help with presentations and to request SENCER materials for distribution. *News From Initiatives are now available.* For copies, e-mail: [SENCER@aacu.org](mailto:SENCER@aacu.org). Entries new for this month are printed in *italics*.

- **December 13-17, 2003:** Presentation by Pearl Fernandes of University of South Carolina—Sumter at the 43rd Annual Meeting of the American Society for Cell Biology, San Francisco, CA. Contact: Pearl Fernandes [pefernan@uscsu.edu](mailto:pefernan@uscsu.edu).
- **January 21-24, 2003.** Association of American Colleges and Universities (AAC&U) annual meeting, Washington, DC: “Practicing Liberal Education: Deepening Knowledge, Pursuing Justice, Taking Action.” Visit: <http://www.aacu.edu/meetings/annualmeeting/index.cfm>. Contact: Marc Fierro, [fierro@aacu.org](mailto:fierro@aacu.org).
- **January 24, 2003.** *SENCER Symposium V in Washington, DC. Check the SENCER Web site for details.*
- **January 24-28, 2004.** American Association of Physics Teachers (AAPT) winter meeting in Miami Beach, FL. For more information go to: <http://www.aapt.org/>. Contact: Theo Koupelis, [tkoupeli@uwc.edu](mailto:tkoupeli@uwc.edu).
- **April 15-17, 2004.** Association of American Colleges and Universities (AAC&U), Network For Academic Renewal, Chicago, IL “Pedagogies of Engagement: New Designs For Learning In And Across The Disciplines.” <http://www.aacu.edu/meetings/pedagogies/index.cfm>. Contact: Marc Fierro at: [fierro@aacu.org](mailto:fierro@aacu.org).
- **May 23-27, 2004.** American Society for Microbiology (ASM), in New Orleans. Abstracts may be submitted from **October 3 to December 11, 2003**. For key abstract submission dates visit the ASM site: <http://www.asm.org/Meetings/index.asp?bid=736>. Contact: Carl Huether, [huethca@email.uc.edu](mailto:huethca@email.uc.edu).
- **July 30-August 2, 2004.** Society for Conservation Biology (SCB) annual meeting, New York, NY: “Conservation In An Urbanizing World.” For more information visit: [http://cerc.columbia.edu/scb2004/Contcall\\_for\\_symposia.html](http://cerc.columbia.edu/scb2004/Contcall_for_symposia.html). SENCER’s Conservation Sciences Cluster is planning to present a session. If you’re interested please contact Cluster Coordinator Tom Wood at: [twood@gmu.edu](mailto:twood@gmu.edu).
- **August 6-10, 2004.** SENCER Summer Institute. San Jose, CA. Contact: [senцер@aacu.org](mailto:senцер@aacu.org).

## Students Respond to SENCER SALG (Continued from Page 7)

"I feel that the SENCER SALG was a very easy task for NCLC 120 students to do to get a first glimpse of the course. I think that it helps the professors understand what types of students they are working with based on their background so that the NCLC 120 faculty can better teach their courses. Because NCC is interdisciplinary, these teachers are not always working with students who have math and/or science-based backgrounds. I feel that it benefits the students because of this, having the faculty know what's coming to them and how they may want to express their knowledge through the course." –anonymous

"Taking the SENCER Pre Course SALG before this second Unit made me think about how much I actually knew about science and how much I actually wanted to know about science. The Pre Course SALG gave me confidence that I would have more knowledge in this subject area after taking this Unit than I had upon entering. It was refreshing knowing in the back of my mind that even though science/math isn't my strong suit, the faculty could sympathize and have agreed to dedicate their time to helping me understand these concepts better." -Kristy Darner

"The SALG survey allowed me to see just how much confidence I lack when it comes to math and science, and provided a drive for me to see a change in that in and through Unit 2 of New Century. Also, in taking the survey I was made aware of some of the goals of the faculty at NCC; knowing that they care about my confidence and desire to learn rather than just keeping their jobs makes the survey worthwhile." -Mary Claire MacKnight

"The SENCER SALG was very easy to use, and I think the questions that were asked were great because they were not based strictly on your knowledge. A lot of the questions were about your attitude toward science, which I think is very important because if you don't develop a good attitude you will not learn anything. If our attitude changes during the course then the faculty will know they're succeeding." -Natalie Gilliom

"The survey was very easy; I remember it only taking me a few minutes to complete. I think it's important not only for the faculty to know what level the students are at, but taking the survey also helps students think about what they really know. It would be different if the survey were very time consuming or arduous, but no one really has an excuse for not using this tool to improve their learning awareness." -Jessie Aldrich

"The SALG pre-test made me feel like I was prepared for the course. When I answered that I was not confident in a certain area of science, I felt that my professors would look at that and pay special attention to that topic. This survey allowed me to identify and communicate with my professors the areas of the course that I was worried about or inexperienced in." - Maggie Eike

"Filling out the survey was very simple. The fact that it was not a lot of reading and just straightforward question, with multiple choice. Answering made it even better. I just hope that we were not filling it out because our teachers told us so... but also because they plan on taking some of our input." -Vanessa Williams

## Resources, Opportunities, and Information

***Help shape public policy in Washington, DC.*** Scientists and engineers are invited to apply for one-year science and technology policy fellowships in Washington, DC, beginning September 2004. These 10 programs, administered by the American Association for the Advancement of Science (AAAS), are designed to provide each Fellow with a unique public policy learning experience and to bring technical backgrounds and external perspectives to decision-making in the U.S. government.

Fellows serve in the Congress, the Department of Homeland Security, the National Science Foundation, the National Institutes of Health, the Department of State, the Department of Defense, the Agency for International Development, the Environmental Protection Agency, the Department of Agriculture, the Food and Drug Administration, and other federal offices. Applicants must have a PhD or an equivalent doctoral degree by the application deadline (January 10, 2004) from any physical, biological or social science, any field of engineering or any relevant interdisciplinary field. Individuals with a master's degree in engineering and at least three years of post-degree professional experience also may apply. Applicants must be U.S. citizens and federal employees are ineligible. Stipends begin at \$60,000.

For further information, contact: [fellowships@aaas.org](mailto:fellowships@aaas.org) or visit [www.fellowships.aaas.org](http://www.fellowships.aaas.org).

## SSI 2002 Teams Report Progress

The reports are just now coming in from teams that have worked on SENCER projects during this past academic year. Details will follow the very brief synopses below:

**Drake University**'s two-semester sequence integrates the science and mathematics disciplines throughout the two courses that focus on current issues: nutrition and global climate change.

**Madonna University**'s new course, "Human Sexuality in a World of Diversity," is designed around SENCER ideals and is being offered for the Fall 2003 term.

**Mercer University** assembled a new Scientific Inquiry case study: "Nutrition and Health," a three to five week case study for use in a scientific inquiry course.

The primary goal of **Northern Arizona University**'s Introductory ENV course is to imbue students with a fundamental knowledge of the scientific method applied to problems in environmental science, including biodiversity, water, and energy.

University Studies, the general education program at **Portland State University**, is offering a new Freshman Inquiry theme, "Pathways to Sustainability and Justice."

**Simmons College** redesigned an existing course, "Great Discoveries in Science," to cover similar material but through a new lens: "Feeding the World's Population."

**Southern Oregon University** created a SENCER pilot course, "Forensic Investigation," a hugely popular, general education class.

## In the Next Issue of the SENCER E-Newsletter...

The December issue will feature:

- A report by Ed Katz of UNC-Asheville on the SENCER Symposium IV held in Charleston, SC,
- Don Stearns of Wagner College on a successful use of SENCER in learning communities and the challenge of applying SENCER to STEM majors,
- A pre-view of SENCER at the AAC&U Annual Meeting, and
- Announcements of up-coming SENCER Symposia and regional follow-up activities.

As always, we welcome your contributions. E-mail us at: [SENCER@aacu.org](mailto:SENCER@aacu.org)

## SENCERious

