Track 1 - Undergraduate Research through the STEM Curriculum
Organizers: Dick Sheardy and Cynthia Maguire from Texas Woman’s University, Steve Bachofer at St. Mary’s College of California

Track 2 - Models for Community Engagement focused on STEM
Organizers: Stephanie Schooley with Campus Compact, Bob Franco from Kapiolani Community College and Ulla Hasager from University Hawaii Manoa

Track 3 - Sustainability: Responsibility and Engagement across all disciplines
Organizers: Amy Shachter from Santa Clara University and Cat Kleier from Regis University

Track 4 - Strengthening the Liberal Arts: Humanities, Social Sciences and STEM in Partnership
Organizers: Eliza Reilly from The SENCER National Center and Stephen Carroll from Santa Clara University
Track 3 - Sustainability: Responsibility and Engagement across Disciplines
Organizers: Amy Shachter from Santa Clara University and Catherine Kleier from Regis University
Track 3 Outline

• Examples (45 minutes)
• Design Workshop (60 minutes)
• Developing Strategies for Integrating Sustainability Across the Curriculum (45 minutes)
SENCER Resources: Models

Over 40 models have been selected over the past 10+ years including:

“Sustainability and Human Health: A Learning Community”
Donald Stearns and Kim Worthy
Wagner College

“Global Warming”
Sharon Anthony
Evergreen State College
Application-Based Service Learning: Combining Undergraduate Research, Service Learning and Collaborative Learning in Upper Level Courses

Dr. Nancy J Trun
Duquesne University, PA

Dr. Gail E. Rowe
Professor of Biology
La Roche College, PA

Ms. Susan M Seibel
Instructor of Humanities and Social Sciences
Butler County Community College, PA

Emerging Infectious Diseases (BIOL 215)
Dr. Rachel Bergstrom, Assistant Professor, and Dr. Marion Field Fass, Department of Biology, Beloit College, Beloit, Wisconsin
SENCER Resources

Climate Change Science and Economics
Denise Eby Konan, Dean of Social Sciences and Professor, Department of Economics (konan@hawaii.edu); Julia M. Morgan, Lecturer, Department of Philosophy (jmmorgan@hawaii.edu), University of Hawai'i at Mānoa

Pollinators: A Case Study in Systems Thinking and Sustainability
Susan H. Cusato, Department of Science Education and Environmental Studies; Suzanne Huminski, Department of Science Education and Environmental Studies, Southern Connecticut State University, New Haven, Connecticut
A SENCER Model

Chemistry and the Environment exemplifies the SENCER approach through campus- and community-based projects that are required of all the students.
Sustainability and a SENCER Model

Students actively participated in civic engagement as a means of learning science and understanding more sustainable ways of living and working...

“Local” projects inspired students to view themselves as community stakeholders and, consequently, fostered enhanced civic engagement and responsibility ... and contributed to building a more sustainable future...
Chemistry and the Environment

• a non-science majors environmental chemistry course
• 40-50 undergraduates
• research projects:
  – groups of 4-6 students
  – group project proposal
  – progress reports
  – final report
  – poster presentation
Cath’s Course

A Surprise for Friday ...
you must attend to be in the know....
Track 3 Outline

• Examples (45 minutes)

• Design Workshop (60 minutes)

• Developing Strategies for Integrating Sustainability Across the Curriculum (45 minutes)
1,2,3,4,5,6,7,8 steps to designing a SENCER model in 1 hour or so

Presented by
Amy and Cath

(originally designed by SENCER leaders Karen Oates, Cathy Middlecamp, and Ellen Goldey)
Step 1 - Overview …

- Brainstorm themes
- Choose a theme
- Establish learning outcomes
- Identify resources
- Envision the process
- Make a poster
- Present it!
Track 3 Outline

• Examples (45 minutes)
• Design Workshop (60 minutes)
• Developing Strategies for Integrating Sustainability Across the Curriculum (45 minutes)
The Piedmont Project at Emory University, the longest-running curriculum development program for sustainability in the country.

Introduced to faculty on more than 150 campuses, the Ponderosa Project at Northern Arizona University is a faculty development initiative aimed at helping faculty across departments integrate issues of environmental sustainability into their courses.
Santa Clara’s Penstemon Project  
Sustainability Across the Curriculum

- **Phase I – “Low Hanging Fruit”**
  - 2007 and 2009
  - one workshop each year
  - approx. 20 each for total of 39 faculty,
  - workshops were two days in the summer,
  - volunteer

- **Phase II – “Higher on the Tree”**
  - 2011
  - Three one-day workshops during the academic year,
  - 20 faculty per workshop (60 total),
  - ipad incentive
Santa Clara’s Penstemon Project
Sustainability Across the Curriculum

- Phase III – “Harvesting the Orchard”
  - 2013-date
  - department-based initiative
Let’s chat in the next session....