

Sustainability Strategic Plan

**College of Social Sciences
San José State University**

Fall 2010

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Introduction

Sustainability as a concept has grown out of a realization, beginning in the early 1960's, with Rachel Carson's seminal writings and coming to fruition in the early 1980's, that human society has dominated the planet to such an extent that continued survival of humanity itself is in jeopardy unless we learn to "meet the needs of the present without compromising the ability of future generations to meet their needs," as succinctly expressed in the Brundtland Report of 1987 (Carson 1962; Brown 1981; Knorr 1983; Jackson, Berry and Colman 1984; Douglass 1984, WCED 1987). More recently, other authors have further refined this idea (for example: Gips 1988; Youngberg and Harwood 1989; Allen and Sachs 1992; Allen, Van Dusen, Lundy and Gliessman 1992; Altieri 1995; Buttel 1997; Altieri and Nicholls 2005; and Wall 2005, among others) to identify human activities as sustainable if they can be considered:

- Ecologically Sound
- Economically Viable
- Socially Just, and
- Culturally Appropriate

The following sustainability strategic plan for the College of Social Sciences at SJSU uses the above four criteria to inform and critique the 40-year history of sustainability curriculum in the College of Social Sciences at SJSU, and to project into the future opportunities and constraints for augmenting existing efforts.

Information contained in this plan was obtained through:

- a) interviewing the current Dean of the College of Social Sciences, Dr. Tim Hegstrom.
- b) reviewing course data collected initially by Dr. Rona Halualani in the Office of the President, and then updated by the SJSU Office of Institutional Research.
- c) evaluating the published catalogue and course lists for each unit within the College.
- d) assessing the current website text for each unit in the College for sustainability-related activities.
- e) emailing information requests to sitting chairs of each unit.
- f) hosting an all-college catered luncheon workshop/discussion on May 3, 2010 with representation of full-time and/or part-time faculty from all departments within the College.
- g) sending followup emails to all workshop participants.
- h) meeting with faculty-in-residence for sustainability from other colleges during Spring 2010.
- i) meetings with Sustainability Director Katherine Cushing, Office of the President.

Despite the effort put forth in developing this plan, it is just a beginning. The topic of sustainability is complex, and it is developing at SJSU in real time. I have come to believe that the College of Social Sciences **is** a leader within SJSU and within the CSU, and even nationwide in some aspects, in achievements related to sustainability. The size and complexity of the College, and of San Jose State University overall, however, renders coordination and communication among the many individual efforts in support of sustainability one of the greatest barriers to its growth. This document should therefore be seen as a living document, designed to provoke more communication, rather than a final

and complete compendium of sustainability efforts, past or future, in the College of Social Sciences at SJSU.

1) History of Sustainability-Related Teaching and Research in the College of Social Sciences at SJSU

The College of Social Sciences at SJSU is fortunate to house some of the longest-standing sustainability efforts in the country. For example, COSS's Department of Political Science produced Gaylord Nelson, the US senator who founded Earth Day in 1970. In that same year, 40 years ago, the College founded Environmental Studies, one of a handful of Environmental Studies Departments being formed nationwide as part of a movement that would lead directly to today's worldwide sustainability movement. Then, in 1980, the College expanded that to one of the first post-graduate programs in Environmental Studies in the Nation. Within the College, many Departments have developed and cross-listed courses or degree requirements related to sustainability as well, including African-American Studies, Anthropology, Communication Studies, Economics, Geography, History, Environmental Studies, Political Science, Social Sciences and Urban Planning. Several faculty in the remaining Departments within the College -- Global Studies, Mexican-American Studies, Psychology, and Sociology -- have research area interests in social and environmental justice, globalization, and sustainability as it affects psychological health.

Champion Departments and Faculty members (in order of influence)

➤ **Environmental Studies**

The Environmental Studies Department provides rigorous, systematic and integrated approach to the study and management of environmental problems and issues. Upon completion of the degree program, students have a solid theoretical and applied preparation for making substantive contributions to promoting a sustainable society. With 40 years of experience granting degrees in environmental studies, this program has achieved a level of professionalism envied by newer environmental programs at other

colleges and universities.

The BS, BA, and the BA Preparation for Teaching (multiple subjects) are available for undergraduates, with the MS degree available to graduates. The BS and BA both offer a broad education in environmental concepts and applications through the core courses, along with a narrower subfield linked to a specific career pathway. This is done through the advisor-approved minor or departmental concentration and electives.

Because Environmental Studies is interdisciplinary, its faculty are drawn from many different fields, including ecology, energy and water resources, engineering, environmental studies, geography, and law.

An important component of the Environmental Studies major is the professional internship, where students assume work responsibilities with corporations, businesses, public agencies, non-profit groups, public schools and other organizations involved in environmental problem solving and management.

Another important feature of the Department is the Environmental Resource Center, a student-run and faculty-directed center, which works with campus staff to promote sustainability in all aspects of campus life. Today, the Environmental Studies Department serves over 200 undergraduate majors and more than 70 Master of Science students.

- Key Faculty:
- Foundational: (Emeritus):
 - Don Aitken Founding Chair of Environmental Studies- Physicist who developed interdisciplinary science of renewable Energy
 - Les Rowntree
 - Frank Schiavo
 - Don Anthrop
- Current:
 - Katherine Cushing, currently serving as Director of Sustainability for the office of

the President, teaches and conducts research in many aspects of sustainability, including: Water Resource Management, Environmental Certification Systems, Environmental Policy Implementation in China, Residential Street Livability, and Campus sustainability.

- Gary Klee has been one of the key architects of the Environmental Studies degrees at SJSU, and is the founder of the Master of Science program in the Department. His research areas all relate directly to sustainability: Coastal and Marine Sanctuary Management; Human Ecology (Emphasis Traditional Systems of Natural Resource Management); International Development (e.g., Peace Corps); Gardens, Culture and the Environment; and Nature and Conservation Photography
- Rachel O'Malley, College of Social Sciences Faculty-in-Residence for sustainability, has teaching and research interests and experience in many components of sustainability: sustainable agriculture and development; environmental impact assessment; restoration ecology; and environmental justice, among others.
- Will Russell, currently graduate program coordinator, has a research focus on the sustainability of the rural landscape, including sustainable forest management, forest conservation and restoration, coastal dune ecology, and environmental education.
- Lynne Trulio, current Chair of the Department of Environmental Studies, conducts research that promotes the long-term sustainability of biological resources in human dominated environments. In particular, she investigates human impacts to species and habitats, especially burrowing owls and waterbirds, and seeks effective methods to mitigate or eliminate those impacts.
- The Department hires many local professionals as part-time lecturers on topics of sustainability, including currently: Shannon Bane (restoration), Jessie Denver (Green

homes and buildings), Joanna Johnson (Environmental Education), Joe Jordan (renewable energy), Ada Marquez-Gonzalo (Environmental Impact Assessment), Bruce Olszewski (Resource Management), Terry Trumbull (Environmental Law) (among many others).

➤ Urban and Regional Planning

The Urban and Regional Planning Department offers an Environmental Planning certificate program that prepares students to understand the linkages between land use patterns, the natural environment, and the policy tools that planners use to promote sustainable urban development. The Department cross-lists and collaborates with the Department of Environmental Studies on many courses focused on sustainability, and it has a rich research history of work in sustainable planning.

○ Key Faculty:

- Asha Agrawal has an impressive record of both teaching and research in green transportation planning.
- Hillary Nixon teaches courses in environmental planning and is actively involved with issues related to campus sustainability.
- Dayana Salazar, Department Chair, has actively promoted cross-disciplinary collaborations in sustainability within the College.
- Part-time faculty Rick Kos (Urban GIS) and Keith Sugar (Planning law) both serve as mentors for students interested in the topic of sustainability within the department.

➤ Communication Studies

The Department of Communication Studies has a history of cross-departmental collaboration with the Department of Environmental Studies on two popular cross-listed GE courses, COMM 146F, Communication and the Environment, and COMM 168: Global Climate Change. It is working on

developing sustainable practices at the Department level, including less reliance on paper and more on the SJSU LMS for teaching. Several faculty self-identify with the topic of sustainability, and the department was among the best-represented at the all-College workshop on the topic.

○ Key Faculty:

- Stephanie Coopman, Department Chair, has a research focus on internet communication that has led her to engage actively in initiatives toward sustainability.
- Dennis Jaehne, former Chair, has a Ph.D. in Environmental Communication and he has been very pro-active in developing collaborations with the Department of Environmental Studies on topics critical to sustainability. He developed the course Communication and the Environment and taught it for many years.
- Rona Halualani was instrumental as special assistant to the President in developing the original assessment of sustainability curriculum on campus.
- Anne Marie Todd teaches both the Communication and the Environment and the Global Climate Change GE courses, and she is very active in promoting sustainability within the College and across campus.
- Both Elizabeth Harris and Karen Williams are part-time faculty in Communication Studies who participated actively in the COSS sustainability workshop and contributed valuable ideas for dissemination of information on-campus on the topic of sustainability.

➤ Geography

The Geography Department is committed to incorporating concepts of sustainability into its curriculum and research. Some faculty members incorporate these concepts as a central and strategic component of their courses and research projects.

○ Key Faculty:

- Kathryn Davis: environmental and social justice; food security and distribution; fisheries and environmental change; sustainable food production systems; organic ranching and dairy production; local food and slow food movement; social justice and local food production systems in poor regions of the world, especially Central America. She is beginning research for an environmental history of the Central Valley.
- Gary Pereira: environmental resilience; diversification, coherence, and resilience in geographies of process and change; global warming; long-term sustainability of geographic, socio-economic, and socio-ecological systems.
- Katherine Richardson: immigration and sustainable work environments; economic development and social justice; sustainable urban development; urban and community gardening; sustainable urban transportation systems (bikes and walking trails)

➤ Anthropology

Sustainability is considered central to the curriculum in the Anthropology graduate program and underpins many of the applications intrinsic to the undergraduate applied anthropology curriculum. The perspective is (naturally) grounded in the discipline of anthropology, and so research priorities are shaped accordingly:

- 1) How do different agents conceptualize “sustainability” and act upon those assumptions and values?
What are the consequences for those often incommensurate views?
- 2) What are the constraints on how people develop their views of sustainability and then act accordingly?
What are the unintended consequences of pursuing “sustainability”?
- 3) What are the important similarities and differences in definitions of sustainability and its salience to

different cultural groups? What are the sustainability consequences of different cultural practices?

4) How does sustainability fit into the long term view of human societies that anthropologist adopt?

○ Key Faculty:

- Jan English-Lueck is developing a project on Clean Technology as an industry cluster in Silicon Valley and other global technology centers that examines work practices and innovation.
- Chuck Darrah is involved in several relevant projects. First, he is collaborating with Dr. Nathalie Ortat of the French Ministry of Transport and Sustainable Development on research that explores how people conceptualize sustainability (and decisions that invoke it) in the context of their broader everyday decision making and how they provision their homes with artifacts. Second, he is collaborating with two colleagues at IBM Almaden Research Center on developing an anthropological perspective on services that can, among other things, support sustainability. Third, he is collaborating with Industrial Design Professor John McClusky, Student Health Services Director Roger Elrod, and other campus stakeholders to develop SJSU as a Healthy Campus in ways that are consistent with sustainable practices.
- Alan Leventhal is a staff member in the College office who teaches in the Department of Anthropology. His focus on Native American Anthropology, culture and recognition struggles are key to understanding of cultural sustainability.
- Roberto Gonzalez is a sociocultural anthropologist whose work focuses upon the relationship between humans and their environment; science, technology, and society; militarism and culture; and anthropological ethics. He has conducted ethnographic research in Latin America and the United States. Professor Gonzalez

teaches a broad range of undergraduate and graduate courses on anthropological theory and methods, social and cultural controls, global processes, and economic anthropology. He has published many articles in academic journals, newspapers, and other periodicals. Professor Gonzalez has also published three books, including *Zapotec Science: Farming and Food in the Northern Sierra of Oaxaca* (2001).

➤ Political Science

○ Key Faculty:

- Terry Christensen served as Executive Director of CommUniverCity San Jose, which conducts projects related to sustainability at the neighborhood level.
- Karthika Sasikumar participated in the COSS environmental justice and sustainability workshop, and she contributed many concrete curricular ideas for how to support sustainability as a topic area in the Political Science department. Her dissertation explores the interaction between India and the international nuclear nonproliferation order, a topic with clear implications for global sustainability.

➤ Sociology

○ Key Faculty:

- David Asquith (long term collaborator with Department of Environmental Studies. Has served as committee member for many quantitative Master of Science theses in the Environmental Studies Department.
- Amy Leisenring – assistant professor in sociology, attended sustainability workshop, expressed interest in developing environmental sociology course
- Scott Myers-Lipton conducts service-learning research around the country, with special interest in aftereffects of hurricane Karina in the Gulf Coast, topics of specific relevance to environmental justice and climate change.

- Part-time faculty member Daniel Brook attended the Environmental justice and sustainability workshop and expressed interest in supporting development of sustainability in the college.

➤ African American Studies

The Department has a history of collaboration with the Department of Environmental Studies within the College on the topic of race and the environment, a critical component of sustainability not represented as well in many universities around the country. The overlap between issues of the role of the urban food supply on sustainability and on the health of inner city African Americans is also of interest to faculty in this department.

○ Key Faculty:

- Steven Millner has served on the board of a nonprofit foundation devoted to education and sustainability and coordinated curricular collaborations with the Department of Environmental Studies on Race Poverty and the Environment;
- Ruth Wilson conducts research on diabetes in the inner city related to urban food sustainability and environmental justice.

➤ Social Science (Teacher Education, Asian American Studies, Women's Studies) and Mexican American Studies

Cultural sustainability and the environmental justice component of sustainability are fundamentally rooted in a strong understanding of topics covered in Asian American Studies, Mexican American Studies and Women's Studies.

○ Key Faculty:

- Marcos Pizarro, Department Chair , Mexican American Studies, conducts research in social justice and makes connections with sustainability and environmental justice through his administrative work and his research.
- Maria Alaniz, Teacher Education Coordinator and former chair has been a pro-

active advocate of guiding future teachers to learn about sustainability through curriculum in environmental education.

- Tanya Bakru, assistant professor in Women's Studies who research focuses on globalization and its impacts on women, poverty and social equity.
- Part-time faculty member in Mexican American Studies Kathryn Rios attended the sustainability and environmental justice workshop and provided many valuable ideas to the conversation.

➤ Psychology

Assessing cultural sustainability and implementing sustainability strategies benefits strongly from an understanding of Psychology.

○ Key faculty

- Steven Macramalla has begun to address the question of how perceived damage of the environment impacts self-concept and inter-personal relationships, and whether the way we treat the environment impacts how we treat ourselves and each other.
- Cheryl Chancellor-Freeland have expressed interest in exploring the topic further.

Centers of Topical Focus

In the College of Social Sciences, four active co-curricular centers have a direct or partial focus on sustainability.

➤ **Environmental Resource Center (ERC)**

- The Environmental Resource Center was established in 1967 and soon became the student research and activist wing of the Environmental Studies Department. Since the early 1970s the ERC has served SJSU with an annual Earth Day celebration, an environmental library and other projects that promote sustainable living. Students in the ERC started the campus

recycling program, and an alternative commute planning program which ultimately became Transportation Solutions and founded an urban agriculture non-profit called Veggielution. The ERC undertakes projects around campus designed to promote sustainability at SJSU. Current projects include promoting bike commuting, working with FD&O on “zero-waste” events, developing local EIR database, maintaining an internship database, working with Spartan Dining to add local organic produce to our campus dining options, and incorporating native plant landscaping throughout campus.

➤ **Center for the Development of Recycling (CDR)**

- The Center for the Development of Recycling (CDR) is a university-based, non-profit, environmental research and service organization that was established in 1989. Located in the Department of Environmental Studies at San Jose State University (SJSU) and stewarded by the SJSU Foundation, faculty-managed students work on environment-related projects for businesses, government agencies, consultants, and non-profit organizations. CDR has contracted to work urban water conservation and recycling projects involving residential and commercial sectors, hotels, multi-family buildings, multi-tenant office buildings and conducting various types of surveys. CDR also established the beverage container recycling program at SJSU and assisted in expanding the recycling program at SJSU. In 1991, CDR bridged personnel and equipment resources of SJSU with Santa Clara County and its 15 cities that resulted in an alliance to provide cost-effective recycling information services for County residents and businesses that also created student service-learning opportunities. CDR added a donor funded website in 1999. CDR operates the Santa Clara Recycling Hotline with a part-time Director; two compensated part-time students who serve as Administrative Manager and Project Manager, and several volunteer students who earn academic credit for community service learning (internship). The CDR Director is a

Department of Environmental Studies faculty member who is responsible for all activities including management of staff, projects, equipment, budget, and adherence to University regulations. The San Jose State University Foundation manages accounting and payroll services. With faculty guidance, CDR's students develop the data and publications used by the Hotline, respond to information requests, personally research unusual requests, manage a document reproduction service for local government recycling and waste management divisions, and supplement Countywide recycling public information campaigns. Students complement their undergraduate and graduate academic experiences at CDR to gain practical work experience in the rapidly developing field of integrated waste management (IWM). CDR staff learns project management skills while earning academic credit. CDR has been recognized with several service-learning awards and over 50 CDR students have used their experience to gain recycling and environmental careers.

➤ **CommUniverCity:**

- Founded during the 2005-2006 academic year, CommUniverCity San José seeks to empower students and residents and to build community by organizing service-learning projects that address education, community health and improvements to the neighborhood environment. CommUniverCity San José projects are based on priorities set by neighborhood residents and are accomplished through collaboration with the Five Wounds / Brookwood Terrace Community, San José State University, and the City of San José.

CommUniverCity San José's goals are to create, support, and enrich **sustainable** community service-learning projects in the following areas:

- Education: Enrich and expand educational opportunities for residents and youth, encouraging a "College-Going" culture through the community.
- Community Health: Support all aspects of the neighborhood that contribute to

healthy environments and lifestyles.

- Neighborhood Environment: Foster a physically safe and socially connected, empowered community.

➤ **Social Policy Research Institute**

- The Survey and Policy Research Institute (SPRI) is a research organization that operates as an integral part of the academic environment on the San José State University campus. SPRI operates as a model for excellence in survey and policy research for the SJSU campus, government, non-profit agencies, and business clients. The Institute provides expertise in quantitative and qualitative research, and specializes in culturally competent, primary language interviewing. A focal point of SPRI's mission is to provide a site for faculty engagement and student training in applied research design, analysis, and reporting. The Survey and Policy Research Institute at San José State University conducted the Spring 2009 SPRI Omnibus Survey March 30-April 10, 2009. This telephone survey of 408 California adults was conducted in English and Spanish, and included questions on several different topics: including environmental attitudes and sustainability.

2) Assessment of Current Sustainability-focused Curricular and Research Assets

The most well-developed rubric for assessing the level and quality of sustainability in the curriculum is found in the Princeton Survey Research Associates 2008 study of over 1000 institutions of higher education, prepared for the National Wildlife Federation. The authors developed these evaluation criteria:

- Must offer undergraduates the option of environmental or sustainability studies as a major and minor.
- Require all or most students to take at least one course related to the environment.
- Have a recruiting program to attract students interested in studying environmental and sustainability issues.
- Must have more than 75% of total undergraduate student body, regardless of department, have taken by graduation at least one course addressing basic functions of the earth's natural systems and issues or topics related to human activity and environmental sustainability.
- Must have programs to support faculty professional development on environmental or sustainability topics, formally evaluate or recognize how faculty have integrated environmental or sustainability topics into their courses and hold campus units accountable for environmental performance through incentives and/or penalties.

Actual curriculum offerings, recent history

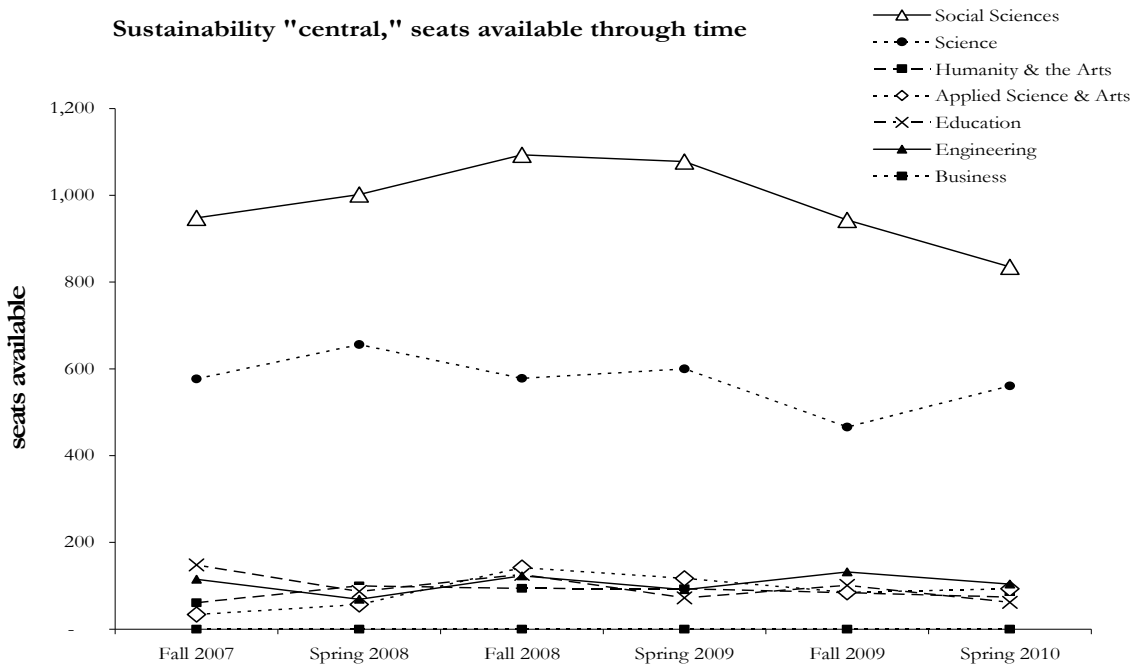


Figure 1: Recent trends in number of *sections* offered of courses with sustainability “central” (data supplied by the office of institutional research, Spring 2010)

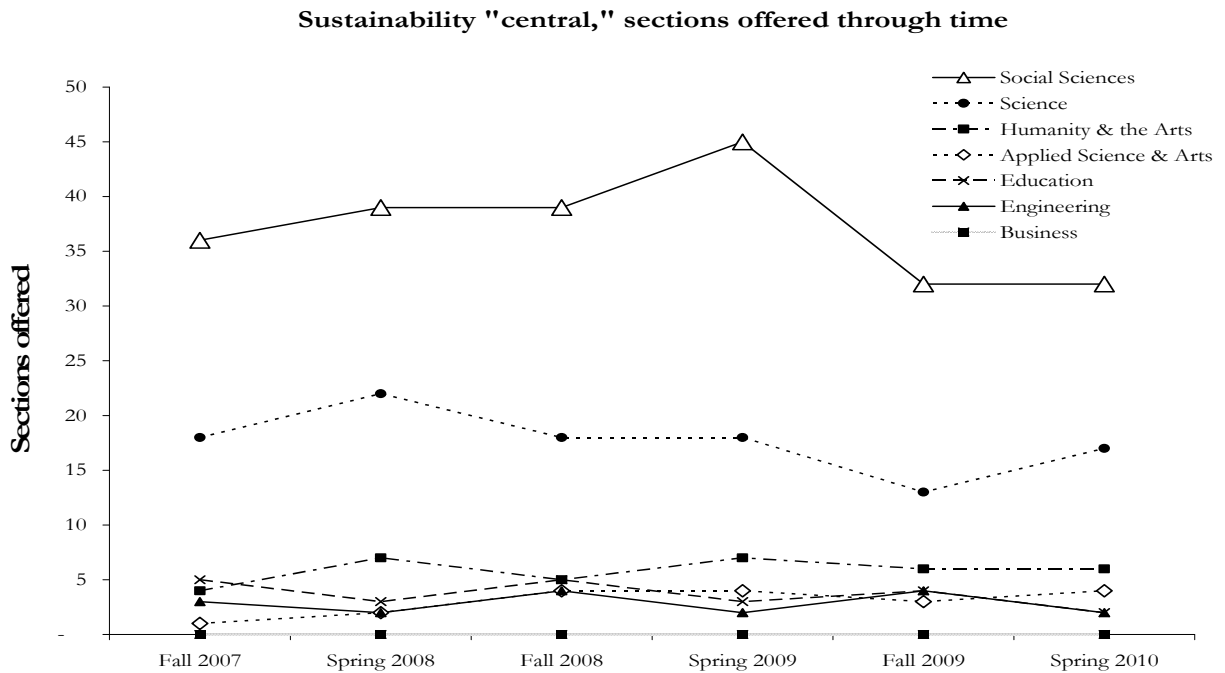


Figure 2: Recent trends in number of *seats* available in courses with sustainability “central”

Overall Curriculum Assessment (SWOT):

➤ Strengths

- Outstanding array of courses and degrees related to sustainability
- Faculty in the College of Social Sciences at SJSU are noted for their excellent teaching and personal involvement with students.
- Faculty are active in community, regional, state and international environmental affairs, and they bring these outside experiences to the classroom.
- Many faculty conduct research and undertake other scholarly work which involves students.

➤ Weaknesses

- Before budget crisis, number of sections of courses (Figure 1), and number of seats in courses (Figure 2) in the College of Social Science with sustainability “central” was steady or increasing. As of 2009-2010, number of sections has dropped, despite continued demand as evidenced by students turned away from full sections.
- The College of Social Sciences sustainability curriculum relies heavily on part-time temporary lecturers (Department of Environmental Studies TTR:Temp ratio ~50:50), who are most vulnerable to budget cuts.
- Full-time positions in Renewable Energy have not been re-filled due to departmental budget constraints.
- Historic student demand for coursework in sustainability exceeds current supply.
- Communication and collaboration among departments in the COSS is weak, cross-curricular information-sharing is highly disorganized, in part because the Departments of the College of Social Sciences are housed in many building across campus.

➤ Opportunities

- Interest in Renewable Energy, a historic strength of the College of Social Sciences at

SJSU has skyrocketed locally in the Santa Clara Valley.

- The City of San Jose has implemented a Green Vision 2020 and wishes to collaborate further with COSS.
- Community colleges in the area, specifically De Anza and Mission College, are rapidly expanding their curricula in the area of sustainability.
- Many faculty in the college have interest in developing new cross-departmental research collaborations in the area of sustainability and in cross-listing courses that will facilitate graduation despite budget cuts and sustainability literacy.

➤ **Threats**

- Other newer programs in the region, including CSUEB and CSUMB, are developing expertise in areas of historic strength for COSS at SJSU - may provide competition.
- COSS at SJSU receives less financial support per FTES than other colleges in the university.
- Budget prioritization strategy for reallocation of resources to growing disciplines can be opaque at SJSU.

Details of Sustainability-related Courses, Concentrations, Certificate Programs, Minors currently available in College of Social Sciences, SJSU (alphabetical)

Courses listed below are identified as either including sustainability as a “central” concept, or as “partially” supporting sustainability. Many sustainability “central” courses were those identified through the process initiated in 2008 by the Office of the President, however others have been added or updated by current chairs of each Department in the College of Social Sciences. I have left in the “partial” courses for departments whose chairs submitted text in response to my queries, however “partial” is definitely a complicated category. I would argue that there are many more courses that

have partial relevance to sustainability in our College, and some listed courses may be less-related to sustainability than others that are omitted. This list should be carefully explored in the future.

African American Studies:

Central:

AFAM/ENVS 151 Race, Poverty and the Environment

AFAM 159 Economic Issues in the Black Community

Anthropology:

Central:

ENVS/ANTH 117 Human Ecology

Partial.

- ANTH 105 Applied Anthropology. (Focus on services as an alternative to material products); ANTH 115, Emerging Global Cultures, has a central assignment in which students examine global commodity chains and then systematically examine alternative patterns of production and consumption to maximize environmental sustainability, health and social justice; ANTH 125, Urban Anthropology, systematically examines the institutions and practices of global cities and by examining social movements and the non-profit sector, seeks to find ways to maximize environmental sustainability, health and social justice; ANTH 132 Creating Built Worlds. Examines facets of the built environment as they are embedded in cultural and social expectations. Final module consists of team projects that address issues of creating built environments under conditions of increasing costs for matter and energy; ANTH 143 Culture and Adaptation. Foundational course in anthropological perspectives on how humans have adapted to the environment and the consequences of their strategies; ANTH 149 Ethnographic Methods. Class projects vary semester by semester. Last year's topic was reported transportation practices among a sample of low income residents. Fall 2010 project

will explore how residents of the region conceptualize sustainability and how it fits into their everyday lives.

Communication Studies:

Central:

COMM 146F: Communication and the Environment

COMM 168: Global Climate Change I

COMM 168W: Global Climate Change II

COMM 296R Seminar in Environmental Communication

Partial:

- All Foundations courses (learning objective: Ethics: Demonstrate understanding of ethical and social responsibilities in communicating with others in interpersonal, organizational, intercultural, mediated, and public contexts.)
- All Practice courses (Social Responsibility: Demonstrate social responsibility and community engagement in practical applications of communication research that meet obligations of democratic citizens.)

Economics:

ENVS/ECON 107: Environmental Economics

ECON/ENVS 108: Cost-Benefit Analysis

Environmental Studies

BS degrees

The BS degree is designed to prepare students for career opportunities in air resources management, aquatic environments, conventional and sustainable agriculture, energy resources, environmental health and safety, environmental impact assessment, environmental restoration, coastal resource management, and hazardous wastes.

Besides the general BS degree, students also have the possibility of selecting specialized concentrations: energy resource management or environmental impact assessment.

BS - Environmental Studies Degree

BS - Environmental Studies, Concentration in Energy

BS - Environmental Studies, Concentration in Environmental Impact Assessment

BS - Environmental Studies, Concentration in Environmental Restoration and Resource Management

BA Degrees

The BA degree is designed to prepare students for career opportunity in wilderness resource management, environmental communications, environmental product design and packaging, integrated and solid waste management, environmental regulation and policy, human ecology, and environmental planning.

BA - Environmental Studies

BA Degree, Preparation for Teaching

Course work for the BA in Environmental Studies, Preparation for Teaching designed to meet the California Commission on Teacher Credentialing (CTC) requirements for diversified subject matter preparation. Graduates of the program will be qualified for employment as elementary or middle school teachers.

BA - Environmental Studies, Preparation for Teaching

Environmental Studies Minors

Minor - Environmental Studies

Minor – Energy Policy and Green Building

Minor - Park Ranger and Administration

Minor – Sustainable Water Resources

Courses (all feature sustainability as a central concept):

ENVS 001: Introduction to Environmental Issues

ENVS 010: Life on a Changing Planet

ENVS 100W: Environmental Research and Writing

ENVS 105: Environmental Change and Problems, San Francisco Bay Area

ENVS/ECON 107: Introduction to Environmental Economics and Policy

ECON/ENVS 108: Topics in Cost-Benefit Analysis

ENVS 110: Resource Analysis

GEOL/ENVS 111: Geology and the Environment

ENVS 112: Hazardous Waste

ENVS/METR 113: Atmospheric Pollution

ENVS 116: Solar Energy Theory and Applications

ENVS 117: Human Ecology

ENVS 118: Sustainable Home Gardens

ENVS 119: Energy and the Environment

GEOG/ENVS 121: Population and Global Change

URBP/ENVS/HIST 123: Historic Preservation and Neighborhood Revival

ENVS/POLS 124: Introduction to Environmental Law

ENVS 125: Advanced Environmental Law

ENVS 126: Environmental Ethics and Philosophy

ENVS 128: Water Resource Management

ENVS 129: Water Policy in the Western U.S.

ENVS 130: Energy Policy Analysis

METR/ENVS 131: Air Pollution Meteorology

ENVS/INTD 132: Solar Home Design

ENVS 133: Alternative Energy Strategies

URBP/ENVS 134: Topics in Historic Preservation

POLS/ENVS 135: U.S. Environmental Policy

URBP/ENVS 136: Introduction to Land Use and Facilities Planning

ENVS 137: Green Building Design Issues

ENVS/POLS 140: Politics and the Environment

URBP/ENVS 142: Introduction to Environmental Planning

ENVS 144: California Wetland Controversies

COMM/ENVS 146F: Communication and the Environment

ENVS 148: Recycling and Resource Management

AFAM/ENVS 151: Race, Poverty and the Environment

ENVS 152: Environmental Issues and Global Distribution of Goods

ENVS 154: Sustainable Agriculture

ENVS 158: Environmental Education

HUM/ENVS 159: Nature and World Cultures

RELS/ENVS 164: New Challenges in Nature and Religion

ENVS 166: Nature and Conservation Photography

ENVS 167: Managing Environmental Issues

COMM/METR/GEOL/ENVS 168: Global Climate Change I

COMM/METR/ GEOL/ENVS 168W: Global Climate Change II

URBP/ENVS 169: Introduction to Computers in Planning

ENVS 170: Introduction to Environmental Health and Safety

ENVS 173: Sustainable Forest Management

URBP/ENVS 178: Introduction to Transportation and Urban Planning

URBP/ENVS 179: Urban Geographic Information Systems

ENVS 181: Environmental Resource Center

ENVS 184: Directed Reading

ENVS/URBP 185: Environmental Impact Analysis

ENVS 187: Environmental Restoration

ENVS 189: Coastal Field Studies

ENVS 190: Advanced Environmental Impact Assessment

ENVS 191: Advanced Environmental Restoration

ENVS 193: Supervised Projects and Research

ENVS 194: Environmental Internship

ENVS 195: Instructor Assistant in Environmental Studies

ENVS 198: Senior Seminar

ENVS 199: Senior Thesis

ENVS 200: Seminar: Environmental Methods

ENVS 230: Seminar: Environmental Theory

ENVS 250: Seminar: U.S. Environmental Thought

ENVS 260: Computer Applications in Environmental Analysis

ENVS 270: Field Studies in Water Resource Management

ENVS 285: Graduate Internship

ENVS 295: Graduate Teaching Assistant

ENVS 297: Research and Proposal Development

ENVS 298: Special Study

ENVS 299: Master's Thesis or Project

Geography

Courses:

Central (per dept source):

GEOG 105: Urban Geography

GEOG 112: Nations, Cultures, Territorial Disputes

GEOG 115: Economic Geography

GEOG 120: Food Supply and Agricultural Systems,

GEOG 121: Population and Global Change

GEOG 124: Topics in Physical Geography

GEOG 125: Topics in Human Geography

GEOG 130: Natural Resources

GEOG 187: Field Study, International

Partial: The Department of Geography also offers several applied methods courses that support sustainability analysis, including GEOG 1: Physical Geography; GEOG 181: Remote Sensing: Basic Theory and Image Interpretation; GEOG 182: Remote Sensing: Digital Analysis; GEOG 186: Field Study and Geographic Surveying

History

Central: URBP/ENVS/HIST 123: Historic Preservation and Neighborhood Revival

Partial: The cultural component of sustainability relies heavily on a strong understanding of both regional and global human history, so many courses provide partial support for sustainability.

Mexican American Studies

No courses currently are identified by the Department as addressing sustainability centrally.

Partial: Because of MAS' focus on social justice throughout the department, issues related in

part to sustainability come up often.

Political Science

Central:

ENVS/POLS 124: Introduction to Environmental Law

POLS /ENVS 135: U.S. Environmental Policy

Partial: Many courses in political science address law, teaching, government service, legislative staffing, political consulting, interest group representation, globalization, and nonprofit applications related to sustainability.

Psychology

No courses currently are identified as addressing sustainability.

Partial: Assessing cultural sustainability and implementing sustainability strategies benefits strongly from the fundamental coursework in Psychology.

Social Science

No courses currently are identified as addressing sustainability centrally.

Partial: Most students completing the Social Science Multiple Subject Teacher Preparation degree program are directed to complete curriculum on sustainability through ENVS 158, Environmental Education, for graduation.

Sociology

No courses have currently been identified as addressing sustainability centrally.

Partial: research methods courses in this department, both quantitative and qualitative, support the Environmental Studies Master of Science Degree.

Urban and Regional Planning

The Department of Urban Planning has a long history of collaboration with the Department of Environmental Studies on the topic of sustainability. These two departments offer many cross-listed

courses, and they accept each other's courses as part of their degree programs.

URBP 101: The City

URBP 111: Urbanization in Developing Countries

URBP/ENVS/HIST 123: Historic Preservation and Neighborhood Revival

URBP 125: Urban Anthropology

URBP 126: Introduction to Urban Form in the Third World

URBP 127: Urban Native American Issues

URBP 132: Creating Built Worlds

URBP 133: Introduction to Social Issues in Planning

URBP 134: Topics in Historic Preservation

URBP/ENVS 136: Introduction to Land Use and Facilities Planning

URBP/ENVS 142: Introduction to Environmental Planning

URBP 145: Urban Policy and Its Impact on Inner City Residents

URBP 178/ENVS: Introduction to Transportation and Urban Planning

ENVS/URBP 185: Environmental Impact Analysis

URBP 211: Regional Analysis and Planning

URBP 225: Land Use and Urban Planning

URBP 226: Regional Transportation Planning

URBP 229: Planning and Environmental Law

URBP 240: Environmental Planning

URBP 255: Urban Growth Management

URBP 256: Transportation Planning: Local Issues

URBP 260: Environmental Planning Topics

URBP 275E: Historic Preservation Planning

3) *College of Social Sciences Sustainability Vision, Goals, and Recommended Actions*

a. Curriculum and Degrees

- Build from the Core:
 - Fully fund and increase course offerings of existing courses that cover sustainability in every department in the college.
 - Support existing energy curriculum through full-time faculty replacement hire.
 - Increase course and degree cross-listing and collaborations among interested faculty, for example:
 - Courses such as AFAM/ENVS 151, race, poverty and the environment, could be further cross-listed with MAS, Sociology, and Social Science to bring in enough students to offer it regularly, and to rotate it through faculty in the collaborating departments.
 - Enhance “3-D” educational facilities for teaching and conducting research on sustainability. While a new green teaching building bringing together the far-flung departments of the COSS would be an ultimate goal, in the short run smaller projects such as enhancing the existing sustainable campus garden and replacing landscaping with native low-water plants, or utilizing students to build roofwater catchments on existing buildings.
 - Utilize Communication Studies Department expertise to market existing sustainability efforts.
 - Promote curricular and co-curricular student activism on campus through ERC/CDR..
- Develop new competencies in sustainability:
 - Promote faculty brown-bag/seminars in sustainability teaching strategies on cross-cutting topics such as environmental justice.

- Develop ORTU to promote sustainability research projects, support contract work in sustainability, and develop sustainability training and certificate/credential programs.
- Develop existing courses to strengthen sustainability curriculum or develop interdisciplinary collaborations, for example:
 - Amy Leisenring suggested developing an environmental sociology course that could be cross-listed with Environmental Studies among other departments.
 - Kathryn Davis is planning to reconfigure Geography 120, 125 and 130 to enhance topics including sustainability and environmental/social justice, as well as environmental history (historical geography), environmental and social justice, food security, and alternative food production systems.
 - Geography, Environmental Studies, MAS, and Sociology could develop a cross-listed GE courses on a topic such as Sustainable Agriculture and the Latin American diaspora, drawing on expertise in these four departments.
 - Katherine Richardson is committed to strengthening curriculum in sustainability through course development in urban and economic geography.

b. Research

- Build from the Core:
 - Fund vacant COSS energy faculty position.
 - Develop ORTU to support existing sustainability efforts and promote research by more faculty.
 - Actively seek external support for existing strengths in sustainability.
 - Develop collaborative relationships among faculty interested in sustainability:
 - Drs. Cushing; Trulio; Marquez; Nixon; Russell; Harries; Collins; and Wilson all expressed interest in developing a collaborative research area related to

environmental justice and sustainability.

- Develop new competencies in sustainability:
 - Develop ORTU to assist faculty in obtaining research funds to expand or change research focus to incorporate sustainability.
 - Support faculty-student partnerships in research as well as identifying possible collaborative research projects and funding sources.
 - Commit to making seed money available through existing funding sources.
- Other specific ideas that arose from faculty who attended the workshop on Sustainability and Environmental Justice:
 - Work with the Dean to achieve “buy-in” for the development of Sustainability curriculum and research.
 - Keep students in the conversation.
 - Define Terms: Use the same definitions for the entire university.
 - Work to “democratize” sustainability, move beyond perception as a white middle class value.
 - Increase college focus on reducing overconsumption, greener classroom policies.
 - Develop a greater attachment among students to the natural world.
 - Create coursework on international ethics and sustainability.
 - In political science:
 - Create a globalization course.
 - Pursue research area in environmental patriotism.
 - Conduct action research on Environmental Justice and Environmental Impact Assessment.
 - Involve multiple departments and colleges.

Sources Cited:

- Allen, P. and C. Sachs. 1992. Sustainability in the Balance: What Do We Want to Sustain? Developing a Comprehensive Vision of Sustainable Agriculture. (Sustainability in the Balance Series) Santa Cruz: University of California, Santa Cruz, Center for Agroecology and Sustainable Food Systems.
- Allen, P., D. Van Dusen, J. Lundy and S.R. Gliessman. 1992. Sustainability in the Balance: Expanding the Definition of Sustainable Agriculture (Sustainability in the Balance Series) Santa Cruz: University of California, Santa Cruz, Center for Agroecology and Sustainable Food Systems, 1992. [NAL Call Number: S441 S872]
- Altieri, M.A. 1995. Agroecology: the science of sustainable agriculture. Boulder::Westview Press.;
- Miguel A. Altieri and Clara I. Nicholls 2005; Wall, G.: Is ecotourism sustainable? Department of Geography, Faculty of Environmental Studies, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada. Environmental Management; <http://unesdoc.unesco.org/images/0015/001572/157287e.pdf> 2005
- Beus, C.E. and R.E. Dunlap 1991. "Measuring Adherence to Alternative vs Conventional Agricultural Paradigms: A Proposed Scale." Rural Sociology 56, no. 3 (Fall 1991): pp. 432-460. [NAL Call Number: 281.28 R88]
- Brown, L.R. 1981. Building a Sustainable Society. New York: Norton. Note: A Worldwatch Institute Book. [NAL Call Number: HD32 B733 1981]
- Buttel, F.H. 1997. "Some Observations on Agro-Food Change and the Future of Agricultural Sustainability Movements." In Globalising Food: Agrarian Questions and Global Restructuring, by D. Goodman and M. Watts, pp. 344-365. London; New York: Routledge. Note: "This book emerged from a workshop on 'Agrarian questions and the restructuring of the agro-food system' held on the Berkeley campus of the University of California, on 28-30

September 1995."

Carson, Rachel. 1962. *Silent Spring*. Boston: Houghton Mifflin Co.

Douglass, G.K. 1984. "The Meanings of Agricultural Sustainability." In *Agricultural Sustainability in a Changing World Order*, by G.K. Douglass, pp. 3-30. Boulder CO: Westview Press, 1984.

[NAL Call Number: S523 A35]

Dover, M.S. and L.M. Talbot. 1987. *To Feed the Earth: Agro-Ecology for Sustainable Development* (World Resources Institute Report, 0880- 2582) Washington DC: World Resources Institute, 1987. [NAL Call Number: S482 D68]

Gips, T. 1988. "What Is Sustainable Agriculture?" In *Global Perspectives on Agroecology and Sustainable Agricultural Systems*, edited by P. Allen and D. Van Dusen (1988): pp. 63-74.

Note: Proceeding of the Sixth International Scientific Conference of the International Federation of Organic Agriculture Movements. [NAL Call Number: S605.5 I45 1986]

Jackson, W., W. Berry and B. Colman, editors. 1984. *Meeting the Expectations of the Land: Essays in Sustainable Agriculture and Stewardship*, by San Francisco: North Point Press, 1984. [NAL Call Number: S441 M4]

Knorr, D. 1983. *Sustainable Food Systems*. Westport CT: AVI. [NAL Call Number: TP370.5 S8 F&N B3414]

World Commission on Environment & Development (WCED). 1987. *Our Common Future: the Brundtland report*. Oxford: Oxford University Press. ISBN 0-19-282080-X

Youngberg, G. and R. Harwood. 1989. "Sustainable Farming Systems: Needs and Opportunities." *American Journal of Alternative Agriculture* 4, no. 3/4: pp. 100. [NAL Call Number: S605.5 A43]