

14th CSU Symposium

on University Teaching



The Symphony Sound of Student Success

April 16, 2011

Hosted by

Faculty Development Office

California State University at Channel Islands

With Generous Support from

THE INSTITUTE FOR TEACHING AND LEARNING (ITL)

CSU Office of the Chancellor



April 16 2011

Greetings Colleagues:

It is my pleasure to welcome you to California State University Channel Islands for the Fourteenth Annual CSU Symposium on University Teaching.

This is CSU Channel Islands' first opportunity to host the CSU Symposium on University Teaching. It is difficult to imagine any closer match than that which exists between this year's Symposium theme and our own University Mission. I am gratified that CSU's finest educators will exchange, on this campus, innovative teaching practices that further students' learning success. It is our expectation that this year's Symposium will provide all participants with a renewed passion for furnishing the excellence in education that makes fundamental differences in our students' lives.

It is my hope that you will take some time to stroll about our beautiful campus and enjoy its Spanish revival architecture and lovely surroundings. The Santa Monica Mountains and coastal areas offer breathtaking views and plenty of great restaurants and recreation activities if you plan to stay awhile.

I look forward to greeting you in person at the luncheon.

Sincerely yours,

A handwritten signature in black ink, which reads 'Richard R. Rush'. The signature is written in a cursive, flowing style.

Richard R. Rush

President



April 16, 2011

Dear CSU Colleagues,

It is my pleasure to welcome you to the CI campus and the 14th annual CSU Symposium on University Teaching. As we are all aware, a focus on teaching is central to the CSU Mission of providing both access and excellence in education. We have a day filled with events that will showcase many exciting and innovative teaching techniques currently used in the classroom.

The Symposium also gives us the opportunity to interact with colleagues across the CSU who share similar teaching values that promote collaboration and sharing of innovative ideas.

I hope that you enjoy this long standing, successful symposium and that you come away with tools to enhance your teaching and learning, while visiting the CI campus community.

Sincerely,

A handwritten signature in cursive script that reads 'Dawn Neuman'.

Dawn Neuman
Provost and VP for Academic Affairs



April 16, 2011

Dear Colleagues,

Today, we attend the 14th Annual California State University Symposium on University Teaching, and we do so at a CSU campus that never existed when this particular Symposium began. This year's symposium theme is "The Symphony Sound of Learning Success," and it is so very fitting to celebrate this on a young campus whose founding mission centers precisely on student success. We must be doing something right!

The complex aggregation of people in any university brings together diverse talents, knowledge, philosophies, skills, dreams and aspirations, just as musicians bring same along with their complex aggregation of instruments into a concert hall.

Every instrument makes a different sound, but when musicians come together especially well, they do what they really intended to come together to do. The resultant single sound they create together is unmistakably beautiful and truly unforgettable.

Faculty developers believe that the "Symphony Sound" we seek to produce together is indeed learning success. We discover unforgettable moments when we see faculty succeeding, just as faculty experience the joy of the "Aha! moments" when students are visibly empowered by learning.

This Symposium allows us to share with each other some ways in which we discovered how to empower others' learning. It's a reminder for a need, like musicians in a symphony, to come together with empowering others as our focused purpose.

We are with good people in a good place, and we will leave much richer for having spent today together. Celebrate this day!

With all best wishes,

A handwritten signature in black ink, appearing to read 'Edward B. Nuhfer'.

Edward B. Nuhfer

Director of Faculty Development

Symposium Organizer, 2011

CSU Channel Islands

TEEMS of TEAMS TO THANK!

Special thanks go to Channel Islands' Tom Emens in Academic and Information Technology for providing his talent and care in many ways, but most obviously in the Program cover and online advertising flyers. More special thanks goes to both Merissa Stith, our Channel Islands' Events Coordinator and Gina Matibag, Support Coordinator for Channel Islands Faculty Development Office for many acts of initiative and countless logistical tasks. Dan Wakelee provided constant advice on campus logistics. Ed Nuhfer managed this year's Symposium and performed tasks that included setting up the proposal submission site, corresponding with authors and reviewer session chairs, maintaining the Symphony web site, editing, drafting figures, design and laying out of the printed program masters printed by Tim Anderson of Copy Center Too! CSU San Bernardino's Alan Llavore helped with tips and sharing about typesetting based on last year's 13th printed program. Amy Wallace, our Dean of Library, graciously provided the Broome Library's facilities to us for this special day. The Instructional Technology Help Desk supported training of student workers and responded to many service requests. Jess Paredes created the guest accounts for our campus network system.

The proposals for the 14th Symposium on University Teaching underwent double-blind peer review. Proposals coded by ID number went to theme session chairs who managed the distribution and compilation of results. The reviewers used a scoring rubric and made additional helpful comments to authors. Authors, in turn, used the reviews to submit upgraded abstracts for the final program. The first-rate quality of this year's presentations owes itself to the collaborative efforts of both authors and reviewers. We thank our reviewers, listed below simply in order of first names: April NelsonAfoa, California State University, Los Angeles; Becky Rosenberg, California State University, Monterey Bay; Bruno Giberti, California Polytechnic State University, San Luis Obispo; Cheryl Spector, California State University, Northridge; Christina Sheldon, California State University, Los Angeles; Cynthia Desrochers, California State University, Northridge; Dawn M. Janke, California Polytechnic State University, San Luis Obispo; Dosanjh Zucker, Kiren, California State University, Northridge; Douglas Stenstrom, California State University, Los Angeles; Ed Nuhfer, California State University Channel Islands; Elizabeth Ambos, California State University Office of the Chancellor; Gerardo Gonzalez, California State University San Marcos; Jeannie Cheng, San Francisco State University, San Francisco; Judy Botelho, California State University Office of the Chancellor; Linda Vanasupa, California Polytechnic State University, San Luis Obispo; Maria Costa, California State University, Los Angeles; Michele Van Hoeck, The California Maritime Academy – California State University; Munyi Shea, California State University, Los Angeles; Nathan Durdella, California State University, Northridge; Raquel Delevi, California State University, Los Angeles; Steven Fleisher, California State University Channel Islands; Victoria Bhavsar, California State Polytechnic State University, Pomona; Virgil Adams, California State University Channel Islands; Vivienne McClendon, The California Maritime Academy, and Walt Bremer, California Polytechnic State University, San Luis Obispo.

This is Channel Islands' first experience in hosting this kind of conference, and that entailed an exercise in growing up fast. The following Channel Islands folks were instrumental in our getting capacity for online proposal submissions, online registrations, and automated credit card charges: Kevin Craig, Tom Emens, Judi Le, Daniel Martinez, Gina Matibag, Kris Muller, Ed Nuhfer, Scott Petersen, Merissa Stith, Judy Swanson, Phyllis Vicker, and Doug Whitesell.

Genevieve Evans-Taylor, John Griffin, and Ed Nuhfer helped recruit and train student support workers for April 16 from the Channel Islands student Business Club. These include Zein Alameddine, Adam Carmichael, Mitsuki Fukumoto, Gregory Goren, Dora Hernandez, Whitney Van Blargen, Berto Matta, and others who had not yet registered when this document had to go to press.

Beyond the generous financial support provided by the California State University Institute for Teaching and Learning through the California State University Office of the Chancellor, which made this Symposium possible, we also thank the staff of that office for their personal assistance from inception through enactment of this year's conference: Cynthia Desrochers, Christine Mallon, Ken O'Donnell, Tarita Varner, and Norma Warren.

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Information Needed to Do This Symposium Well

We designed this Symposium to make it an event of learning and renewal. It is relaxed, on a Saturday, and dress should be weekend comfortable and informal. All of the sessions occur in the Broome Library, except for our lunch with live music by in nearby Malibu Hall. We have a reserved parking lot near the Library, behind Sage Hall. It will be well marked and you'll see it on your left soon after you enter campus by the main entrance on University Drive.

The Symposium opens just slightly after 9:00 a.m. with the special showcase poster session on high impact practices. The library only opens at 9:00 a.m., not a minute before, so unless you are a poster presenter, count on arriving a few minutes after then to allow setup. Registration packets include a print program, cloth carrying bag, pen, a pad of paper and a flash drive full of useful resources.

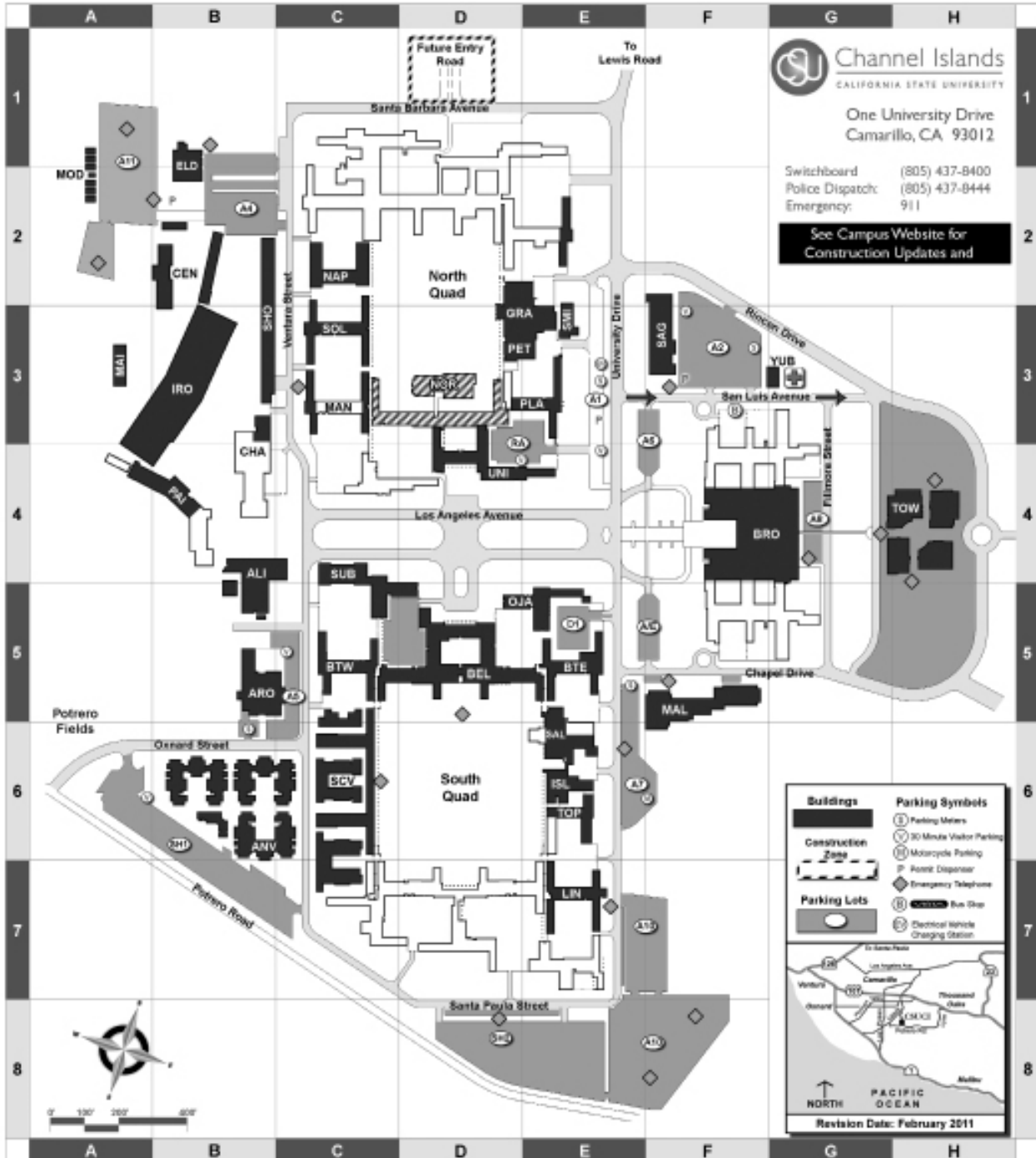
The poster session coincides with a continental breakfast in the same area of the library as the registration. From about 9:05 a.m. to 10:00 a.m., we have a relaxed hour in a common area where we can confer with poster authors, munch breakfast goodies, and meet one another. At 10:00 a.m., we'll begin to move into the conference rooms that are marked in blue inside the back covers of the Symposium Program, and first concurrent sessions start promptly at 10:05 a.m.

Oral sessions are 30 minutes long. Each room will have a timer set to beep at the end of 28 minutes to signal a "two-minute warning." At the end of those two minutes, the presentation needs to end and the presenter area at the front of the room vacated so that the next presenter can set up. We have ten minutes between papers, so leisurely set up and discussion can carry on as soon as the presenter area is vacated. Participants can network between sessions, and there is even time, with focus, to walk back to the poster session area, grab coffee and a desired snack, and reenter the room before the next session starts.

At noon, we'll enjoy lunch in nearby Malibu Hall. A campus map is in the printed program. People will be going through serving lines while treated to nice music by CI's Paul Murphy, guitar and accompanists Steve Marsh on sax; and Adrian Rosen on bass. We'll receive greetings at 12:30 from CI's President Richard Rush, Provost Dawn Neuman, and others, and thereafter return to listening to music and networking with one another. Feel free to break out, stretch, and walk around campus until end of lunch break. Keep an eye on your watches, because by 1:30 p.m., we will have reconvened in Broome Library for the afternoon concurrent sessions, until about 4:00 p.m.. We will then enjoy our last hour together with wine, cheese, and a "cracker barrel" reception on the open patio at the rear of the library.

The "cracker barrel" will consist of ten table areas marked with the ten original topical theme sessions to which authors responded. Relax with a glass of wine, background music by Paul Murphy— this time solo—and mosey to the topical gathering of choice. The library closes at 5:00 p.m., so be aware of that if you need to retrieve posters or materials.

As noted in Dr. Rush's welcome address, this is a beautiful campus. Those of us who work here sometimes feel like we work in a botanical garden. It is certain that you will enjoy a nice stretch and walk around this campus before getting into a car for the drive home. If you are from out of town, it's probably a good choice to have dinner while the freeway clears a bit (heavy traffic doesn't last long here). There's a list of restaurants on page 26, and you may want to talk to local Channel Islands participants for recommendations both on and off that list.



Building	Grid	Building	Grid	Building	Grid
ALI Aliso Hall	B4	IRO Ironwood Hall	B3	SAG Sage Hall	F3
ARO Arroyo Hall	B5	LIN Lindero Hall	E7	SAL Salon A	E6
ANY Anacapa Village	B6	MAI Maintenance Stores	A3	SCV Santa Cruz Village	C6
BRO Broome Library	F4	MAL Malibu Hall	F5	SMI Smith Decision Center	E3
BTW Bell Tower West	C5	MAN Manzanita Hall	C3	SHO Shops	B3
BEL Bell Tower	D5	MOD Modoc Hall	A2	SOL Solano Hall	C3
BTE Bell Tower East	E5	NAP Napa Hall	C2	SUB Student Union Building	C4
CEN Central Plant	B2	OJA Ojai Hall	E5	TOP Topanga Hall	E6
CHA Chaparral Hall	B4	PAI Paint Shop	B4	TOW Town Center	H4
ELD El Dorado Hall	B1	PET Petit Salon	E3	UNI University Hall	D4
GRA Grand Salon	E3	PLA Placer Hall	E3	YUB Yuba Hall	G3
ISL Islands Café	E6				

Conference Schedule

BROOME LIBRARY

EVENING BEFORE OR 9:00 AM POSTER SET UP

BROOME LIBRARY:

9:00 – 10:00 AM REGISTRATION WITH POSTERS

10:05 – 10:35 AM CONCURRENT SESSIONS 1

10:45 – 11:15 AM CONCURRENT SESSIONS 2

11:25 – 11:55 AM CONCURRENT SESSIONS 3

12:00 – 1:25 PM LUNCH AND LIVE MUSIC (MALIBU HALL ROOM 100)

BROOME LIBRARY

1:30 – 2:00 PM CONCURRENT SESSIONS 4

2:10 – 2:40 PM CONCURRENT SESSIONS 5

2:50 – 3:20 PM CONCURRENT SESSIONS 6

3:30 – 4:05 PM CONCURRENT SESSIONS 7

4:05 - 5:00 P.M. "CRACKER BARREL" RECEPTION

Easy Day Planner

Time	Write Room #	Write Session ID #	Abstract is on Program Page #
9:00 a.m.	1320 Concurrent Posters	1320-1 to 1320-12	pp 1-6
10:05 a.m.			
10:45 a.m.			
11:25 a.m.			
12:00 p.m.	Lunch & Live Music, Paul Murphy, guitar; Steve Marsh, sax; Adrian Rosen, bass. Malibu 100		
1:30 p.m.			
2:10 p.m.			
2:50 p.m.			
3:30 p.m.			
4:00 p.m.	Wine & Cheese Cracker Barrel Reception: Patio Rear of Broome Library		

Notes



Notes



Room 1320 Schedule

**All posters concurrently exhibited from 9:00 a.m. to 10:00 a.m.
in Exhibition Hall Room 1320**

Poster Number	Poster Title
1320-1	<i>Partnering with Social Institutions to Offer Innovative Interdisciplinary General Education Courses</i>
1320-2	<i>Linking Curricular Innovation, Critical Service Learning, and Institutional Goals: A Case Study</i> POSTER WITHDRAWN DUE TO FAMILY EMERGENCY
1320-3	<i>Faculty Learning Community on Undergraduate Research: Challenges and Successes</i>
1320-4	<i>CSUPERB: Twenty+ Years' Experience Engaging Students in Biotechnology</i>
1320-5	<i>Reproductive Health Knowledge and Behavior among College Women: Contraception and Papanicolaou Screening Rates</i>
1320-6	<i>Theory and Components of A Full Model Service-Learning Course</i>
1320-7	<i>CSU San Marcos' Committee on Undergraduate Research (CUGR)</i>
1320-8	<i>Chillin' with Knowledge: Chicana/o Studies Engaging in High Impact Practices</i>
1320-9	<i>Student Learning through Civic Engagement: Long Beach State's Alternative Spring Break Program</i>
1320-10	<i>Experimenting with Experiments: Engaging Students in Research Methods Courses</i>
1320-11	<i>A Short, Sustainable and Impactful (SSI) Service-learning Component for Undergraduate Courses</i>
1320-12	<i>Encouraging Student Application of Content outside the Classroom</i>

1320-1

Partnering with Social Institutions to Offer Innovative Interdisciplinary General Education Courses

Dennis Muraoka, California State University Channel Islands; Correia, Manuel, California State University Channel Islands; Costache, Irina D., California State University Channel Islands; McNeill, Alex, California State University Channel Islands; Rodriguez, Donald A., California State University Channel Islands; Rush, Richard R., California State University Channel Islands; Wakelee, Daniel, California State University Channel Islands, and Wallace, Amy, California State University Channel Islands

Question: What do art museums, zoos, libraries, national parks, universities and music museums have in common?

Answer: Each of these familiar social institutions is the focal point for an upper division, interdisciplinary, general education (UDIGE) course offered at California State University Channel Islands (CI).

An important element of CI's mission is to facilitate learning "across disciplines through integrative approaches..." CI infuses this mission element in its graduates by requiring all students to complete three UDIGE courses. In these courses, the methodologies of multiple disciplines are applied to a topic of interest. As such, these courses are cross-listed among two or more academic programs and are often team-taught. In choosing three UDIGE courses, students select two courses that connect their major to another discipline or disciplines. The third UDIGEC course must be from outside the major. The CI faculty created an array of innovative UDIGE courses, and use the CSU upper division general education requirement to distinguish a CI degree from degrees granted by other institutions.

As noted above, a popular group of CI UDIGE courses is built on a model that partners familiar social institutions with the university. The topics of these courses are the institutions themselves. At present, six courses are based on this model: The Museum, The Zoo, The Library, The National Park, The University, and The Music Museum. A distinctive characteristic of these courses is that a significant portion of the course content is delivered at these institutions by professionals employed by these institutions (for example, much of the course about zoos is delivered at the Santa Barbara and Los Angeles zoos). Each of these courses examines the unique missions, business and management practices, educational programs, and other elements of these highly familiar social institutions.

1320-2

Linking Curricular Innovation, Critical Service Learning, and Institutional Goals: A Case Study

Nancy Quam-Wickham, California State University Long Beach

This poster demonstrates how critical service learning projects can contribute to disciplinary currency, curricular and institutional goals, and student success by examining one case study: History 482I: Recent American Environmental History, an upper-division capstone General Education course at CSU Long Beach. Unlike environmental history courses offered at most institutions of higher education, which emphasize the "natural world" apart from cities, CSULB's History 482I situates the topic within the urban context of the region.

By its nature, Environmental History is an interdisciplinary field requiring familiarity with concepts of biology and ecology, demography and public health, politics and public administration, cultural and gender studies, landscape studies, sociological theories of racial and social stratification, and understanding of the complexities of historical change. For the past 12 years, this course has incorporated a mandatory service learning requirement.

The service learning component is designed to reinforce the following institutional goal: To provide students with the abilities to "recognize ethical challenges to human life" and "advocate a reasoned position of social responsibility," as they pertain, in this case study, to environmental issues, either within the community or historically.

The service learning component contributes to student success efforts as well, as the course's interdisciplinary emphasis allows for diversity in service learning placements, so that students can chose their placements based on both interest and future career goals, regardless of academic major. Placements vary widely, but all adhere to the "critical service learning" model: promoting social justice, activism, and active community engagement while reinforcing curricular understanding.

1320-3

***Faculty Learning Community on
Undergraduate Research: Challenges and
Successes***

Ranjeeta Basu, California State University San Marcos; Tsui, Stephen, California State University San Marcos; Sun, Qi, California State University San Marcos, and Imara, Mtafiti, California State University San Marcos

On our campus at CSU San Marcos, the Faculty Center in collaboration with the AVP for Research organized a Faculty Learning Community (FLC) around the theme of integrating undergraduate research into our curriculum. A group of eight faculty across different disciplines and colleges were selected to meet monthly for a period of two semesters to discuss specific courses in which they plan to integrate an undergraduate research component. They were to discuss challenges that they face in attempting to incorporate undergraduate research into their courses and to develop a set of best practices that transcend disciplinary courses that can be shared with the wider community on our campus and across the CSU. In this poster session, four of us from the FLC would like to share our experiences being part of the FLC with other faculty across the CSU. We believe that the FLC has been a very effective structure within which we were able to explore issues, concerns and strategies regarding undergraduate research. Most of our discussions have focused on incorporating undergraduate research as one component into courses that are not necessarily research based courses. In other words, we believe that it is important for students to start developing a curiosity about what they are learning, a spirit of inquiry and the joy of discovery from the beginning of their coursework in college all the way through to their culminating courses. Our focus is more on those earlier courses along the way versus the culminating research course. In the poster session, we will focus on examples of small exploratory ways of building that spirit of inquiry while teaching students the course content. We will discuss examples from the physical sciences, social sciences, arts and humanities and business.

1320-4

***CSUPERB: Twenty+ Years' Experience
Engaging Students in Biotechnology***

Susan Baxter, San Diego State University; Koch, Robert, California State University Fullerton, and Goldman, Michael, San Francisco State University

Twenty-four years ago, CSU faculty worked as a group to incorporate molecular biology and genetic engineering techniques into classrooms and research laboratories. Today, CSUPERB involves over 250 CSU faculty and 500 CSU students annually, hailing from life sciences, clinical sciences, physical sciences, agriculture, engineering, computer science, and math departments

from 22 campuses. Based on feedback from life science industry employers, CSU's biotechnology community invested itself in the idea that modern biotechnology preparation requires the integration of coursework, hands-on practice and participation in multi-disciplinary, team-based research projects. This commitment is further bolstered by data showing that research experiences, whether in academic, community or industry settings, are especially effective at engaging and retaining students who are the first in their families to attend college or are from communities underrepresented in the life sciences. CSUPERB uses over 70% of its grants and awards budget to provide travel support, research project support and the ability to participate in the Annual CSU Biotechnology Symposium to CSU students. Final reports from CSUPERB-supported undergraduate researchers indicate that their graduation rates are 3 times greater than the average CSU STEM 6-year graduation rates. Importantly new data collected by CSU Fullerton and San Francisco State University show that research experiences early in a students' academic career (first or second year) also lead to better grades in intermediate level courses, higher retention rates in degree programs and the same improved graduation rates seen in the CSUPERB-supported undergraduate research programs. In collecting this data, we uncovered previously unrecognized barriers to research course access, including GPA requirements and course prerequisites. Recognizing that CSU's comprehensive campuses, large and small, have varying levels of research infrastructure, CSUPERB is working to engage CSU administrators, industry sponsors, like Life Technologies Foundation, and other academic partners to support and make accommodations for CSU student researchers.

1320-5

***Reproductive Health Knowledge and Behavior
among College Women: Contraception and
Papanicolaou Screening Rates***

Stephen Chang, California State University Fullerton; Nguyen, Juliane, California State University Fullerton, and Nguyen, Tu-Uyen, California State University Fullerton

While Asian Pacific Islanders (API) are the fastest growing ethnic minority groups and comprise approximately 5% of the U.S. population, only 2% of sexual health research is reported for these communities. In fact, sexual and reproductive health research and services continue to overlook these communities. The California Young Women's Collaborative (CYWC), a project of the National Asian Pacific American Women's Forum (NAPAWF), is a college student-led research and activism project that has had student cohorts at five different California public universities in the last five years: San Francisco State, UC Davis, UC Berkeley, Cal State Fullerton, and UC Irvine. The purpose of CYWC is to provide leadership development and research training for college API

students through social activism projects in the areas of sexual health and reproductive justice. We will present our research findings and share our experiences of working on a community-based participatory research (CBPR) study (involving a survey with over 800 students) as part of the 2009-2010 CWYC class. Our focus was on API college females' knowledge and behaviors regarding contraception and Papanicolaou tests.

1320-6

Theory and Components of A Full Model Service-Learning Course

Robert Bleicher, California State University Channel Islands;
Buchanan, Marilyn, California State University Channel Islands,
and Correia, Manuel, California State University Channel Islands

Theory behind the model. A student's academic career path can be conceptualized as a process of change from current beliefs about a discipline (or life in general) to new beliefs as she considers and either accepts or rejects theories about some topic in the discipline (or a life-coping skill). The goal is to increase a student's self-efficacy (as a student, community member, or worker) as she undergoes this process of change and progresses through the components of the model.

Model components. The model includes the following components and suppositions:

- (a) Prior beliefs and attitudes are explicitly drawn out for examination;
- (b) enduring change is a slow process that requires commitment;
- (c) collegial support in the form of regular meetings and discussions is crucial to sustainability of the process;
- (d) experience and reflection are necessary for effective change;
- (e) perceptions that student efforts in the service learning experience are having a positive impact on people in that setting are critical to the continuance of this effort and directly related to increases in self-efficacy; and
- (f) community members must be partners in the conceptualization of the service learning project and support its long-range goals.

Self-reflection techniques. Weekly journal writing, including the professor's responses, is the most important technique for nurturing student reflection. Special group reflection activities immediately following service learning experiences are employed to assist the students in reflecting back on their activity and to develop critical analytic skills that can improve future activity. Finally, working with a service learning "buddy" is crucial to the process in providing a critical friend and supportive partner in the activity setting.

1320-7

Committee on Undergraduate Research (CUGR): Advancing Undergraduate Research at CSU San Marcos

Shana Bass, California State University San Marcos

California State University San Marcos' mission includes a commitment to student and faculty engagement in research. Since joining the Council for Undergraduate Research (CUR) in 2007, CSUSM has made a significant effort to institutionalize undergraduate research on campus. The first steps toward this goal were the establishment of the Undergraduate Research Initiative and the creation of the Committee on Undergraduate Research (CUGR). This poster focuses on the mission, goals, and activities of CUGR at CSU San Marcos from 2007-2011. This committee brought together faculty from across the campus that share a commitment to undergraduate research. Early activities of CUGR included campus dialogues and presentations to entities across campus. Next, CUGR conducted a campus-wide survey to document the current level of undergraduate research and creative activities on campus. Among other findings, analysis of this data suggested that while many departments across campus are actively engaging in undergraduate research, resources to support these activities are limited. Most recently, CUGR has been actively pursuing activities geared toward positioning undergraduate research as an institutional priority, including seeking endorsement by campus constituencies and integrating undergraduate research with other campus initiatives. Future goals include enhancing infrastructure to support undergraduate research, celebrating student and faculty research achievements, and developing a research-supportive curriculum.

1320-8

Chillin' with Knowledge: Chicana/o Studies Engaging in High Impact Practices

Morris Vásquez, Irene, E., California State University, Dominguez Hills; Joe Aguilar, California State University, Dominguez Hills; Marisela Chávez, California State University, Dominguez Hills; John García, California State University, Dominguez Hills; Elizabeth González Cárdenas, MA, University of California, Los Angeles; Ricardo Gutierrez, California State University, Dominguez Hills; Angelica Jimenez, California State University, Dominguez Hills; Raphael Martínez, Chicana/o Studies/History Major, California State University, Dominguez Hills; Daniel Pérez, California State University, Dominguez Hills, Lissette Pérez, California State University, Dominguez Hills, Lauren Romero, California State University, Dominguez Hills; Moises Santos, California State University, Dominguez Hills.

Latina/o students in the Chicana/o Studies Department at California State University, Dominguez Hills engage in high impact practices that enrich their academic opportunities, nurture their commitment to community service, and influence their decision to continue their educational pathway to post graduate programs. These practices include senior capstone, internship, service learning, and study abroad experiences, as well as faculty-student mentoring opportunities and possibilities for student academic leadership through department-affiliated student organizations. Students report that these involvements expand their commitment to academic and social understandings of contemporary society and serve to inspire them to complete their degrees and obtain post-graduate degrees and credentials.

Research on the success of Latino students in higher education demonstrates that high impact practices positively influence student success in regards to persistence, retention, and aspirations for a graduate degree. Preliminary qualitative and quantitative data from the past five years demonstrates that students in the Chicana/o Studies program have benefited from their involvement in high impact practices. Chicana/o Studies students have interned for the federal government or local non-profit organizations, have participated in study abroad or transnational academic dialogues sponsored in conjunction with national and international universities, and have taken their research projects to public forums such as academic conferences and research competitions on and off campus.

The Chicana/o Studies Department has tracked the educational successes of current and former students for program review purposes. Quantitative and qualitative surveys given to alumni and current students in the Chicana/o Studies Department demonstrate three results of student engagement in high impact practices: student educational enrichment; student clarity in regard to career or professional aspirations, and student commitment to diversity and civic involvements. The presentation tracks the involvement of several Chicana/o Studies cohorts to understand the value of high impact educational practices and their perceived effect on first generation and Latino students.

1320-9

Student Learning through Civic Engagement: Long Beach State's Alternative Spring Break Program

Christopher R. Warren, California State Long Beach

The California State University, Long Beach's Alternative Spring Break program began in 2006 in reaction to the devastation from Hurricane Katrina in the Gulf Coast. The 2010 Alternative Spring Break class represented the fifth trip taken by CSULB students, staff, and faculty to aid in the rebuilding efforts. Between 2006 and 2009, over 120 students participated in this event, contributing approximately 4,800 hours of service to help the citizens of southern Louisiana. In 2010, an additional 30 students traveled to New Orleans, teaming up with local and national Habitat for Humanity representatives, as well as local Louisiana activists and historians, and the 2011 cohort includes 32 students currently selected for participation in the program. Since its original inception, the program has also incorporated a semester-long class component, focusing on the leadership and federal response to the 2005 disaster due to Hurricane Katrina, utilizing books, articles, and documentaries describing the issues surrounding the storm and contributing to the tragedy (fulfilling an upper-level, intensive-writing, human diversity, requirement). In tandem, the course and service learning components not only serve to represent a comprehensive view of the catastrophe, but also a holistic experience for students, and the self-proclaimed pinnacle to their undergraduate education. The overall goals, impact, and best practices are presented in order to facilitate future Alternative Spring Break programs.

1320-10

Experimenting with Experiments: Engaging Students in Research Methods Courses

Sean Kelly, California State University Channel Islands

Teaching research methods to political science undergraduates is challenging. Our curriculum front-loads the learning experience with content and is rarely focused on how content—the facts that are being learned—is generated. After two years of learning about political processes, absorbing political facts, understanding major theories, and developing informed opinions about politics, students enroll in a research methods course are abruptly asked to begin thinking systematically. They are asked to transition from “information sponges,” to understanding how new knowledge is created and creating new knowledge.

After years thinking about how to bridge this gap I arrived at a treatment: “shock therapy.” I engage students in a laboratory-based experiment from the beginning of the course. This immediately draws students into thinking systematically about politics.

Among the benefits of this approach:

- There is no need for students to master a voluminous research literature or understand complex data generation processes. The political context developed in a lab experiment is constrained enough to allow students to immediately engage the substance of the experiment.
- Laboratory experiments reduce contextual complexity; students can easily identify the relationship between a “treatment” and an outcome, a cause and effect
- Data generated by an experiment lend themselves to simple data analysis like difference of means tests that are a gateway to more sophisticated analysis.
- Students become “research assistants” for the research project; they develop an investment in the project, its process, and its results.
- This approach erases the dichotomy between teaching and research. Faculty can build a research interest directly into a course.

This presentation focuses on: 1) the design of this specific course, 2) students’ perceptions of the value of engaging a research project for learning about research methods, and 3) how this model might be adapted into methods courses across the social sciences.

1320-11

*A Short, Sustainable and Impactful
(SSI) Service Learning Component for
Undergraduate Courses*

Christina Chávez-Reyes, California State Polytechnic University,
Pomona

University departments and courses are currently expected to use innovative instruction to increase student engagement and learning. Service learning, with its applied learning approach and civic engagement emphasis, can satisfy this expectation. Unfortunately, many faculty members undertake it without sufficient preparation and curricular integration, thus abandoning the pedagogy long before its effectiveness can be achieved.

This presentation describes a short, eight-hour sustainable, and impactful (SSI) service learning component developed in an upper-division liberal arts synthesis course focused on the civic evaluation of public education (Foundations 2). Modifiable for undergraduate courses across disciplines, the model initially integrates the aims of service learning (community involvement to solve community issues) with at least one course learning objective. Foundations 2 integrated service learning aims with three course outcomes: explaining the current social, political and economic purposes of schooling, explaining

and describing how various individuals and groups perceive and experience school differently, and explaining how citizens play a vital role in the educational process.

Next, the needs and goals of the primary stakeholders (faculty member, students, and community-based organization) are integrated in the design of the service learning experience and course assignments. Foundations 2 designed a mentoring experience for teen parents at a continuation high school (community-organization need) where college students provide academic and career planning (learning objectives), required to complete organizational progress reports on teens and written reflections on mentoring.

The model also emphasizes the deliberate selection and maintenance of a community partnership using the “University-Community Partnership Needs and Impact Matrix”—developed expressly for this model. This design has resulted in students’ increased empathy for alternative student experiences in public schools, self-efficacy in civic engagement and an increased understanding of course material from applied learning. Integration guidelines and practical alternatives will also be presented for the adaptation of the model to other disciplines.

1320-12

*Encouraging Student Application of Content
outside the Classroom*

Thomas Norman, California State University Dominguez Hills

This poster session shares ideas for student activities that get students using material covered in the classroom in projects, service learning opportunities and internships. For example in my human resource management class students learn how to interview job candidates effectively and then practice these new skills in a real world setting. Over 200 CSUDH students have shared 3-4 hours of their time in a community service project that has helped more than 1,000 LA area high school students improve their job readiness through a mock- interview workshop.

CSUDH students describe this as one of the most profound learning experiences in the management concentration. The poster session will share information about consulting type projects that have students take to the field to analyze management challenges including work involving local donut shops, Subway restaurants and the Compton School District.

Suggestions on how to track these projects and internships using Blackboard’s Discussion Board features will be shared. For example, this semester I am using the tool to promote learning from each other’s projects via submission of weekly reflection papers to a shared location and requiring student reaction to the experiences of other students.

Room 1360 Schedule

Time	Title
10:05 a.m.	<i>Dual, not Dueling Conductors: A University-wide Team-Based Writing Initiative</i>
10:45 a.m.	<i>Creating a Symphony of Success through Multidisciplinary Collaboration</i>
11:25 a.m.	<i>The University: An Upper Division Interdisciplinary General Education Course</i>
Noon Lunch	<i>Lunch with Live Music</i>
1:30 p.m.	<i>Prelude to Student Success: Striking the Right Note during the First Class</i>
2:10 p.m.	<i>From Post-Mortem to Grand Finale in Six Measures</i>
2:50 p.m.	<i>Making beautiful music at San Diego State: The Syllabus as a Symphonic Score</i>
3:30 p.m.	<i>The Hope Program: Undergraduate Researchers in Action</i>

1360-1 10:05 a.m.–10:35 a.m.

Dual, not Dueling Conductors: A University-wide Team-Based Writing Initiative

Mary Adler, California State University Channel Islands

This presentation will focus on a university-wide initiative to develop a school culture of writing instruction at CSU Channel Islands. The initiative, called Roving Rhetorician, consists of partnering an English faculty member with extensive writing expertise with a (typically) science faculty member and course. Over the course of the semester, the Rhetorician and the course instructor partner together to consider how writing is presented to students, develop activities that can enhance students' success, revise rubrics to make evaluation goals clearer and consistent, and develop online as well as face-to-face peer feedback activities. The presenter, a Rhetorician who partnered with a psychology faculty in a History of Psychology course, will use this semester's experience as a case study to reflect on the advantages of such a model for student success, faculty change, and campus cultural shifts. We will look at materials developed during the collaboration and discuss mechanisms for student success as well as inevitable problem areas. Particular focus will be paid to the final course product (a literature review) and the process by which that assignment was refined. Audience feedback and questions about the model are welcomed and encouraged.

1360-2 10:45 a.m.–11:15 a.m.

Creating a Symphony of Success through Multidisciplinary Collaboration

Dr. Wendy Murawski, California State University Northridge; Friedman Narr, Rachel, CSU Northridge-Dept of Special Education; Hayashi, Chris - CSU Northridge - Dept of Educational Leadership & Policy Studies; Laija-Rodriguez, Wilda - CSU Northridge - Dept of Educational Psychology & Counseling; Spencer, Sally - CSU Northridge - Dept of Special Education; Quary, Theresa - Family Focus Empowerment Resource Center

Through a federal earmark grant, faculty in the Michael D. Eisner College of Education at California State University, Northridge participated in the Transdisciplinary Teacher Development Project (TTDP). The goals of the TTDP include: developing increased collaboration between faculty and community members affiliated with the CSUN College of Education; conducting sound, evidence-based research and evaluation; designing activities that give students the opportunity to learn about other fields of study; institutionalizing a collaborative methodology in courses; and fostering a generation of professionals who have an understanding of each discipline's vision, mission, values, beliefs, knowledge, practices, rhetoric and skills.

The focus of this session will be to share how faculty from different departments came together with parent representatives from the Family Focus Empowerment Center, as well as community K-12 personnel, to create a shared experience for CSU students as they learned about IEPs. (An IEP is an Individualized Education Program created for students with disabilities to receive services through special education.) Because one of our major goals for CSU students was for them to understand the impact one's frame of reference (background, experiences, ideology, biases) can have on an interaction

with individuals from other disciplines, we had to practice what we preached. We modeled multidisciplinary collaboration as we taught it to our students.

This presentation will share the development process of this project, to include challenges and successes, as well as specific outcomes for students and faculty. We will share videos of our joint class sessions, as well as concrete student data from surveys, assessments, and interviews indicating student outcomes and goal attainment. Presenters will share their different experiences and challenges, and participants will be asked to engage in an activity related to identifying one's own frame of reference that was also used with CSU students. Discussion will be encouraged.

1360-3 11:25a.m.–11:55 a.m.

*The University: An Upper Division
Interdisciplinary General Education Course*

Dennis Muraoka, California State University Channel Islands,
and Rush, Richard R., California State University Channel
Islands

The faculty at CSU Channel Islands (CI) have developed an innovative set of upper division interdisciplinary general education (UDIGE) courses in partnership with familiar social institutions. The first of these courses, The Museum, was offered in partnership with the Getty Museum and has since been offered with other regional museums. Following the success of this course, additional courses were created in partnership with local zoos, libraries, and national parks. The latest of such courses is The University.

The University is cross-listed between business, economics and education, and provides students with a 360-degree view of the workings of a modern university. The course was first offered in Fall 2010, and was team-taught by the University President and the Dean of Faculty. All members of the President's Cabinet served as guest speakers during the course, as well as many faculty, staff and administrators who engaged the students in discussions about their areas. The inclusion of administrators and staff in the delivery of the course proved to be a valuable staff-development activity.

At CI, UDIGE courses are designated as "writing intensive courses," and, as such, challenging written assignments are an essential element of the course. These assignments include: weekly reflective journal entries relating the presentation(s) to the course student learning outcomes, a term paper comparing and contrasting the CI mission statement to the mission statement from another institution, a UDIGE course proposal using the CI curriculum approval form for a new course, and, as a culminating group project, a proposal for a new CI major using the CI curriculum approval forms. The design of

this group project ensures that students must demonstrate how they have integrated and synthesized what they have learned throughout the course. The students present their proposals to a group of faculty and administrators who participated in the class.

1360-4 1:30 p.m.–2:00 p.m.

*Prelude to Student Success: Striking the Right
Note during the First Class*

Lori Baker-Schena, California State University Northridge and
Dosaanjh Zucker, Kiren, California State University Northridge

Like the first notes of a symphony that beckon the music to unfold, the first day of class frames the learning experience to come. Starting off-key in those important first moments dissipates and distances students from the learning opportunities offered by the course, while striking the right note invites students to open up to the possibilities that await them. The right note in those important first moments with our students may carry different tunes, but are united by a similar harmony: enthusiasm, engagement, relevance, a sample of learning activities that will be experienced in the course, and a framework of expectations and responsibilities clearly communicated and planned.

This session will model an effective approach to the first day of class. After describing the session's goal, the presenters will provide a brief overview of the strategies and theory that guide their planning of the first day of class. Participants will then engage in two exercises, both modeling an activity for the first day of class, and providing an opportunity for the participants to each develop an activity for their own classes' first day.

1360-5 2:10 p.m.–2:40 p.m.

*From Post-Mortem to Grand Finale in Six
Measures*

Steven Fleisher, California State University Channel Islands and
Moffett, Nelle, California State University Channel Islands

All of our programs and courses at Channel Islands now have identified student learning outcomes. The challenge for many faculty is figuring out what to do next. How do we create a process for measuring these outcomes that is both do-able in terms of faculty time and that reflects student learning in a way that provides meaningful feedback leading to improvement of instructional design and pedagogy? This presentation describes how we developed a comprehensive assessment of student learning outcomes for one Psychology course, employing multiple measures. This assessment was possible in great part because we designed the course to align the content, pedagogy, and assessment. This presentation discusses

how we employed a Knowledge Survey (KS), based on student learning outcomes to plan class lectures, activities, assignments, and tests. The KS allowed instructors to gather assessment data on all of the course outcomes as part of embedded course assessments. Analyzing the results of student learning in the course therefore required only simple tabulations. Formative assessments were also used and provided opportunities for mid-course corrections as needed. This instructional alignment and assessment process has greatly demystified how to plan coursework and measure student learning outcomes at the course level.

Our objective was to create a course that has all of the pieces aligned. Accordingly, this presentation is designed to demonstrate how we achieved this alignment, and to provide participants with strategies for achieving the same in ways that are meaningful for individual circumstances. Participants will be guided in completing a miniature alignment framework from program outcomes, to course student learning outcomes, to assessment of student learning.

1360-6 2:50 p.m.–3:20 p.m.

***Making Beautiful Music at San Diego State:
The Syllabus as a Symphonic Score***

Kathy Williams, San Diego State University and Allen, Brock,
San Diego State University

Central to a great symphony is its score, magical notes that produce the beautiful harmonies and resolve the dissonances. To us, the symphonic score in our classrooms is the course design document we call the syllabus. Key to classroom practices that enhance student learning and success is openly providing a score—a syllabus—that fully describes the architecture and expectations of a course. Although preparing a syllabus is a mundane chore to some, faculty in our Unpacking the Syllabus Faculty Community are developing strategies and materials to improve the design and use of syllabi as powerful tools for shaping courses and curricula, making beautiful music with student successes.

We view the ‘syllabus’ as a design document, similar to a symphonic score, that facilitates communication among faculty (conductors) and students (musicians). Clear syllabi can help students understand how courses fit into their academic program (repertoire), and help faculty relate course content to departmental and programmatic outcomes. Ideally, they describe capacities students achieve in courses, what learning activities they undertake, and how student achievements are evaluated and align with other courses.

This initiative addresses the way syllabi communicate the purpose, organization, and expectations associated with all courses. This requires attention to several issues relevant to successful student learning in courses across

the campus. For example, syllabi should incorporate required (and recommended) content, including recently adopted General Education statements and outcomes. This framework is designed so students and faculty can recognize the common goals of the GE program, and appreciate the relevancy of the shared requirements across disciplines. Achieving such harmony is a challenge, and we aim to provide students with beautiful syllabi so they can select the perfect scores to master and successfully complete their repertoire. Here we will share the strategy and examples, and solicit reflections about applications for other campuses.

1360-7 3:30 p.m.–4:00 p.m.

***The Hope Program: Undergraduate
Researchers in Action***

Virgil H. Adams III, California State University Channel Islands

This presentation reports on an ongoing research program that utilizes undergraduate research assistants, with the goal of increasing the percentage who matriculates on to attend graduate programs. Within psychology, students who conduct research that results in conference presentations have an increased likelihood of being admitted into graduate school; this includes both Master and Doctoral degree programs. This presentation conveys the ‘lessons learned’ through examination of both success stories and failures in an ongoing six-year program to increase the number of underrepresented and first generation college students who get advanced degrees in either psychology, sociology, or other social science disciplines.

This is a two-semester and one summer program. It begins in the fall semester when students are identified and recruited to join the Hope research team. During the spring semester, students take a course in which they learn both the theoretical and practical aspects of Field Research Methods. Simultaneously, they conduct literature research that is used to develop a centralized themed questionnaire to test their research question (all questions center on hope, well-being, or related topics). By the end of spring term, they are prepared to enter the field and collect data over the summer months from the communities in which they live. In the fall, they return to campus to take an intermediate statistics course where they utilize their collected data while learning data entry, cleaning, analysis, and report writing. The capstone requirement of this fall course requires the submission of abstracts to local and regional conferences.

To date, three cohorts (67 students in total) have successfully completed the program. Eighteen 18 (27%) of these students have successfully entered graduate programs. This interactive presentation communicates highlights of the teaching, the research projects, the success stories, noted aspects that did not work well, and the invaluable lessons learned.

Room 1756 Schedule

Time	Title
10:05 a.m.	<i>Using a Simulation Exercise to Enrich Learning and Enhance Student Engagement</i>
10:45 a.m.	<i>Student Centered Discussion: How to Get Students Talking and Learning</i>
11:25 a.m.	<i>Music to Your Students' Ears: The Power of Vocal Variety and Other Immediate Behaviors in the Classroom</i>
Noon Lunch	<i>Lunch with Live Music</i>
1:30 p.m.	<i>If We Wish They Knew How to Learn, Who Will Teach Them? Enacting Learning-Across-the-Curriculum</i>
2:10 p.m.	<i>Improving Student Problem Solving Abilities Using Model-Eliciting Activities</i>
2:50 p.m.	<i>A Question of Ethics: Is Universal Design the Answer?</i>
3:30 p.m.	<i>Assessing the Validity of Three Metacognitive Instruments: TTM, R-SPQ, and LSSA.</i>

1756-1 10:05 a.m.–10:35 a.m.

Using a Simulation Exercise to Enrich Learning and Enhance Student Engagement

Daniel Wakelee, California State University Channel Islands and
Itkonen, Tiina, California State University Channel Islands

How do you provide students with a first-hand experience of the concepts listed on your syllabus beyond readings, lectures, discussions and the occasional video? In-class simulations can be a valuable tool to stimulate student engagement and provide a richer understanding of course material. A simulation of the budget process in a fictional California school district was developed for use in interdisciplinary, team-taught course on Education Politics and Policy. While many simulations are elaborate and time consuming, in this course it was necessary to develop an exercise that could be carried out in a couple class meetings (with additional material provided and interactions conducted online through Blackboard). In the exercise students are assigned to groups representing various roles, such as school board, a teacher's union, a parent organization and business interests. During the course of the activity, in addition to the mechanics of crafting a budget, students experience how competing interests shape decisions, apply issue framing (a topic covered earlier in the course), and gain experience in coalition building. The exercise gives students a richer understanding of the complexity of both issues and processes central to the course, they emerge from the experience asking better, more sophisticated, questions from than students in similar classes that have not participated in the exercise. When surveyed, students report the exercise was a valuable tool for integrating various concepts from the course. This type of simulation is adaptable to other settings and has been used successfully in a lower division introductory course on American Political Institutions.

1756-2 10:45 a.m.–11:15 a.m.

Student Centered Discussion: How to Get Students Talking and Learning

Matthew Paolucci Callahan, Sonoma State University

Student Centered Discussion (SCD) is a process for training students to have productive, generative discussions about course content. But facilitating discussions such as these do not just happen. Instructors must create a climate conducive to discussion, promote the skills required for effective discussion (i.e. communication, interpersonal competence, critical thinking), and provide students with a workable process for structuring discussion. SCD is a flexible model. It can be successfully incorporated in any discipline - from English, linguistics, and history, to social sciences; from the life, physical and information sciences to mathematics and engineering. This workshop is designed to be an instruction to student centered discussion and will address the following components:

1. **Skills:** There's more to discussion than just talk. Effective discussion does more than provide a structure for great conversations. It trains students in skills that should be developed and honed throughout their education. In this section, I will discuss how Student Centered Discussion promotes skills such as active reading, articulate communication, interpersonal competence and critical thinking skills (i.e. problem solving, synthesizing, reflecting)
2. **Process:** The nuts and bolts of Student Centered Discussion I will present concrete guidelines, tools and recommendations for facilitating SCD. This includes active reading exercises; guiding/re-directing discussion, and the opening move. Participants will also be instructed on how to facilitate discussions, how

to take notes on discussions to use for feedback and assessment, and how to trouble shoot when problems arise. Participants will leave the workshop with the basic skills for implementing SCD into their upcoming courses.

1756-3 11:25 a.m.–11:55 a.m.

Music to Your Students' Ears: The Power of Vocal Variety and Other Immediate Behaviors in the Classroom

Melanie Rae Davis, California State University Fullerton and California State Polytechnic University, Pomona

Each year I look forward to attending the annual CSU Symposium on Teaching and Learning. The many “active” and “cooperative” learning techniques I now use in my courses have come from this annual “tradition.” I, however, am still surprised at the number of students in my classes that claim to have “boring dull professors who are anything but engaging” (my solicitation of this information from my students happens as I discuss the importance of nonverbal behaviors specifically in the context of public speaking). While we seem to be constantly striving to incorporate active and engaging learning strategies into our courses, we seem to have forgotten one of the easiest, least time consuming methods of engagement—enthusiastic engaging lecture through the use of nonverbal and verbal immediate (liking/closeness) behaviors.

According to Rodriguez, Plax, and Kearney (1996), “For almost two decades researchers in instructional communication have reported data consistent with a positive relationship between teacher nonverbal immediacy and student affective and/or cognitive learning” (p.293). During a lecture; immediate behaviors create a friendly relaxed atmosphere for the student. “These behaviors include eye contact, the use of gestures, movement about the classroom, smiling, vocal variety, and the use of humor” (Chesebro & McCroskey, 1998, p. 446). The results of several additional studies have shown a link between teachers’ friendliness and warmth toward students during a lecture, and higher rates of attendance, student participation, test/work results, and overall student demeanor (Lang, 1997).

This interactive presentation is designed to demonstrate the importance of nonverbal immediate behaviors such as vocal variety, facial expression, and gestures in the classroom. Participants will not only walk away with an understanding of the literature surrounding these issues, but will engage in behaviors that will allow them to “practice” such techniques and collaborate with their colleagues in brainstorming and think-pair-share activities.

1756-4 1:30 p.m.–2:00 p.m.

If We Wish They Knew How to Learn, Who Will Teach Them? Enacting Learning-Across-the-Curriculum

Cynthia Desrochers, California State University Northridge; Nuhfer, Ed, California State University Channel Islands, Altier, Lee, Chico State University; Costa, Maria Delores, California State University Los Angeles, and Rosenberg, Becky, California State University, Monterey Bay

To prepare for this session, think of one thing that you really wish your students understood about their learning. Write it down. We’ll make use of it.

We faculty studied to become disciplinary experts, and few of us studied to become experts at facilitating adult learning. This likely results because we received precious little systematic practice in understanding or facilitating our own learning at any stage of being students. Current advances in brain neuroscience promote understanding of good learning practices in unprecedented ways, yet traditional student success guides have not changed much. Faculty development does keep abreast of this literature, possibly because faculty development may be the most successful interdisciplinary profession in the history of higher education.

For the same reason that writing-across-the-curriculum produces better writers than any single composition course, a learning-across-the-curriculum effort should be more effective than any one-term college learning-strategies course. If every college course were to teach just one thing to students about learning—that “thing” being what the professor, in that time, most wishes his/her students knew, our graduates could be more competent in their disciplines through understanding adult learning. This is an enhancer of professional competence, not a diversion. No finer method of faculty development exists than faculty and students exploring the process of learning in any major or discipline, with the intent of achieving higher levels of learned expertise together.

Faculty developers at the CSU campuses are producing resources needed to enact this vision of “learning-across-the-curriculum.” Participants will receive a number of the modules generated for this purpose. Reflective exercises, images, and additional resources exist as supplements for each module. All modules approach learning through practical models of how the brain learns rather than as the disconnected strategies and finger-wagging admonitions. We’ll explore some modules and how to use them.

1756-5 2:10 p.m.–2:40 p.m.

***Improving Student Problem Solving Abilities
Using Model-Eliciting Activities***

Brian Self, California Polytechnic State University, San Luis Obispo; Bissonnette, Mathew, Cal Poly San Luis Obispo; Kean, Andrew, Cal Poly San Luis Obispo; Usher, Annamarie, Cal Poly San Luis Obispo; Heller, Collin, Cal Poly San Luis Obispo

In practice, engineers typically have to model physical processes and communicate their findings to a broad audience. Unfortunately, many foundational engineering courses tend to stress solving over-constrained homework problems using algorithmic substitution, and rarely ask students to write. Model-Eliciting Activities (MEAs), which were developed in the mathematics educational community, attempt to address these shortcomings by asking teams of students to attack open-ended problems. The six guiding principles of MEAs try to maximize the learning potential of these activities:

1. **Reality Principle-** contains a realistic client with engineering context
2. **Model Construction Principle-** a mathematical model and/or decision algorithm must be developed
3. **Model Documentation Principle-** a deliverable, often in the form of a memo to the client, should reveal student thinking
4. **Self Assessment Principle-** students should be able to know when their model is “good enough”
5. **Generalizability Principle-** the model should apply to multiple related situations
6. **Effective Prototype Principle-** the MEA should involve important concepts that are critical in future classes and engineering practice.

A collaborative group consisting of seven different universities has teamed to expand the use of MEAs in engineering disciplines. Our research program includes creating and disseminating new MEAs (www.modelsandmodeling.net) and extending the MEA construct to address conceptual understanding, ethical considerations, and the use of physical artifacts to improve MEA efficacy. At Cal Poly, we have focused on MEAs dealing with Mechanical Engineering. Examples include creating an accident reconstruction tool for police in Sri Lanka, constructing an energy rebate program for a local utility company, and developing a sizing algorithm for wind turbine blades. Early results show improved conceptual understanding as well as improved self-reported abilities in writing, working in teams, knowing professional and ethical responsibilities, and interpreting engineering data. We believe that MEAs also have the potential to improve student motivation and increase long term retention.

1756-6 2:50 p.m.–3:20 p.m.

A Question of Ethics: Is Universal Design the Answer?

Jayne McGuire, Humboldt State University

Engagement and success in college courses increases when students feel their instructors are operating with high ethical standards. Some of the most frequently cited perceptions of unethical instructor behaviors include concerns relating to grading, favoritism, bigotry, preparedness, accessibility, and the honesty and accuracy of information being shared. The principles of Universal Design for Instruction (UDI), which were crafted to address issues of equality, accessibility, social integration and community, may provide an ideal platform for faculty to establish and ensure ethical practices within courses. During this interactive session participants will explore the most commonly cited ethical infractions as perceived by students. We will then explore UDI and brainstorm way to ensure that our courses are being delivered fairly and ethically. As an end product, participants will create an action plan that utilizes their increased awareness of UDI and students’ perceptions of ethical behaviors.

1756-7 3:30 p.m.–4:00 p.m.

Assessing the Validity of Three Metacognitive Instruments: TTM, R-SPQ, and LSSA.

Janine Kremling, California State University San Bernardino, and Tolman, Anton, Utah Valley University

The current study assesses the impact of the metacognitive instruments mentioned above on student learning. The R-SPQ (Revised Study Process Questionnaire) is as an established instrument that assesses the degree to which students adopt a surface versus a deep approach to learning in their course. The TTM (Transtheoretical Model of Change) Study Survey is intended to measure students “readiness” to adapt or maintain effective studying strategies. This is important in order to be able to make inferences from the survey results. Finally, the LSSA (Learning Strategies and Self-Awareness Assessment) assesses how often students utilize known effective learning strategies.

The main purpose of this study is to assess the influence of metacognition and personal study plans on the academic success of students. It is hypothesized that students who complete the metacognitive surveys and develop a personal study plan (CJUS 101 Fall 2011) will have a higher learning curve as compared to students in classes who do not use metacognition and personal study plans (CJUS101 Winter). This question will be tested by using pre-and post-tests of student knowledge and thinking skills. Specifically, students will receive a pre-test during the first class and a post test during finals week that contains the same test questions. The greater the improvement between pre- and post-test, the higher is the learning curve. Additionally, student comments will

be analyzed to determine the impact of the metacognitive instruments on their study habits. It is hypothesized that students who used the metacognitive instruments and

a study plan will show greater changes towards deep learning as compared to students who did not use the instruments or the study plan.

Room 2325 Schedule

Time	Title
2:10 p.m.	<i>Teaching Inner Strategies for Math</i>
2:50 p.m.	<i>Cross Disciplinary Development of a Concept Inventory for Science Literacy from General Education Courses</i>
3:30 p.m.	<i>“There’s an ‘App’ for That...” Examining Use of the iPad for Faculty</i>

2325-1 2:10 p.m.–2:40 p.m.

Teaching Inner Strategies for Math

Teed Rockwell, Sonoma State University

The ability to manipulate inner images is an essential part of the strategies used by most skillful mathematicians. Those students who subconsciously rely on inner sounds i.e. silently talking through” the problem, find that this strategy breaks down for complicated problems. If they rely on these auditory strategies, they will eventually conclude they have no “math ability” (which is just a way of labeling the problem without providing an explanation.) However, these students can develop math ability if they learn how to use the appropriate visual strategies.

I teach my logic students visual pattern recognition games of increasing complexity, ending with a logic-related game I call “Where’s modus ponens?” that I will demonstrate in this lecture. Students who spent one hour playing these games did dramatically better on their logic tests than students in my previous classes, who were not taught these games. When I presented this lecture to one of my colleague’s logic classes, this class had three times as many “A” grades as his other class, who were not presented the lecture. Many students can train themselves to manipulate inner images once they realize that this is the route to math success. When their ability to hold a steady inner image wavers, the students can be taught to create on paper the images that they cannot hold in their minds. Those students who do badly in math because of their reliance on auditory strategies usually do not understand how to use scratch work effectively.

2325-2 2:50 p.m.–3:20 p.m.

Cross Disciplinary Development of a Concept Inventory for Science Literacy from General Education Courses

Christopher Cogan, California State University Channel Islands, Klock, Carl, CSU Bakersfield, and Nuhfer, Ed, CSU Channel Islands

In 2008, science instructors from four CSU campuses, supported by funding from the Office of the Chancellor’s Institute for Teaching and Learning, began a project to promote science literacy in general education science courses. This project has now contributed to the regional and national dialogue on science general education outcomes. We developed twelve learning outcomes that correspond to important concepts of understanding science, in contrast to the usual presentation of “the scientific method.” Since 2010, our work has been incorporated into CSU and UC guidelines to assess transferability of science courses for general education courses. To be able to assess the effectiveness of such courses in producing science literacy, we constructed a Science Literacy Concept Inventory to assess conceptual understanding of science as a way of knowing and reasoning. Two versions are in the first year of testing at a few universities across the nation. Reliability is good ($R = 0.83$), and some results are surprising. As a nation, we don’t produce science literacy in general education courses. Professors are science literate and score about 90, but they don’t pass conceptual reasoning on to their students who score about 59. Undergraduates who score high represent those who gain entrance to graduate school. We professors and our texts routinely teach the knowledge and applications of science but not conceptual understanding or evidence-based reasoning. These are teachable, but should be done directly. Science is probably not the only general education discipline that has lagged to articulate its valuable concepts as ways of knowing to those for which general education is intended. Humanities, social sciences and the arts can likely benefit from a similar reflective discussion and articulation of unifying concepts most useful to the general citizen.

2325-3 3:30 p.m.–4:00 p.m.

“There’s an ‘App’ for That...” Examining Use of the iPad for Faculty

Brian Greenwood, California Polytechnic State University, San Luis Obispo

What seemed like a nanosecond after Apple unveiled its newest “hot” device, some academics were declaring the iPad to be a “game-changer,” set to “revolutionize” education in the 21st century. Others have called these claims overblown and believe the iPad to be yet another technological fad. Yet, when considering that net-capable mobile devices are slated to outnumber computers within the next year as the top medium for accessing the Internet (The New Media Consortium, 2011), change may indeed become reality. Faculty are increasingly feeling

pressure to remain tech-savvy. With many universities in the California State University system embracing the teacher-scholar model and asking faculty to be more productive in all three domains of teaching, research, and service, a technological edge may be the difference between success and failure. We will examine the most popular educational applications for the iPad by breaking down their cost, functionality, faculty satisfaction, and potential for impact on student success and learning. We have used the device in our online, hybrid, and traditional classrooms and as a productivity tool and will share our personal experiences both positive and negative. In addition, participant engagement will be encouraged in both discovering new applications and discussing the iPad’s current and future role in academia.

Room 2330 Schedule

Time	Title
10:05 a.m.	<i>Boomerang: Using the Internet to Solve the Learning Problems That It Created</i>
10:45 a.m.	<i>On-line Interactive Geography Games to Enhance Student Global Awareness</i>
11:25 a.m.	<i>A Study of Online Textbooks: Student Perspectives from Multiple Courses</i>
Noon Lunch	<i>Lunch with Live Music</i>
1:30 p.m.	<i>IT Literacy for the Internet Era</i>
2:10 p.m.	<i>Virtual Crits: Using technology in Design Studios</i>
2:50 p.m.	<i>Using a Group Decision Support System to Support Collaborative Learning</i>
3:30 p.m.	<i>The Librarian and the Professor: A Partnership Designed to Enrich Our Classrooms with the Trove of Information Proprietary Databases Offer</i>

2330-1 10:05 a.m.–10:35 a.m.

Boomerang: Using the Internet to Solve the Learning Problems That It Created

Piera Fumagalli, California State University Northridge

A Saudi student recently wrote an essay comparing the Internet to an ocean and himself to a lost navigator, unable to find solid ground where the computer did not have a grip on him. In a December 29, 2010 article in The New York Times, Juang Xueqin stated that Chinese students lack critical thinking skills. Colleagues from California to Finland have been wondering why their students have a reduced ability to think critically, focus, take notes, study, retain information, and write. The Internet, which may be the cause of this, goes one step further than the passive participation enabled by TV: with instant pause and replay, it conforms to the viewer’s attention span (or lack thereof). On the other hand, the Internet itself can be harnessed to addict students to their

studies, encourage them to be perfectionists, and teach them how to avoid plagiarism. Moodle, or other Course Management Systems, can actually compete with the Internet by allowing creation of an alluring multimedia educational world in which the students may navigate. Detailed monitoring and appropriate praise add to incentive. Quizzes, with embedded instruction, may be used as study aids rather than for grading. Since online quizzes are like video games with instant feedback, even students lacking discipline become addicted to taking quizzes repeatedly to get the coveted score of 100%. Online writing evaluation services such as Criterion also provide feedback. In pursuit of scores (such as 0 grammar errors), students become careful proofreaders, developing habits that remain even during in-class essays when they have no access to a computer. Plagiarism detectors such as Turnitin can allow multiple submissions of papers until the due date so that students may learn how to summarize sources. The Internet has power, and we have to tap into this power to serve our educational purposes.

2330-2 10:45 a.m.–11:15 a.m.

On-line Interactive Geography Games to Enhance Student Global Awareness

J. Andrew Morris, California State University Channel Islands

Business and economic activities are increasingly global in nature. The rise of international business demands that business leaders develop greater global awareness. In this session, I introduce and ask session participants to play an on-line interactive geography game that I have used to help business students develop greater global awareness. Session participants are encouraged to consider ways they could incorporate this and other interactive games into their own classrooms.

Traveler IQ Challenge (located at: <http://www.tripadvisor.com/TIQGame>) presents players with a series of progressively harder places that must be located on a map with a mouse click. Points are awarded for both accuracy and speed; accuracy determined by the proximity of the player's guess to the actual location on the map; speed by how quickly the player chose the physical location after its name was initially revealed. I have most frequently used the game as one of four required exercises occurring in a junior level Principles of Management course. Students are instructed to play the game outside of class and are encouraged to play as many times as desired. On the first day of the global business module, each student is required to provide three deliverables: a report of their initial game score, a copy of their highest score, as well as a subsequent reflection on and discussion of two reasons why knowing geography would be helpful to managers.

Student performance data suggests that playing the game enhances student understanding of the importance of geography for managerial decisions around outsourcing and where to locate international production. Students' comments about the game indicate they find the game and the exercise scoring rubric challenging. Informal comments indicate that Traveler IQ Challenge as an on-line, interactive experience closely resembles the "gaming" activities that many intensely enjoy outside of class.

2330-3 11:25 a.m.–11:55 a.m.

A Study of Online Textbooks: Student Perspectives from Multiple Courses

Christine Victorino, California Polytechnic State University, San Luis Obispo; Chen, John, California Polytechnic State University, San Luis Obispo; Birdsong, Charles, California Polytechnic State University, San Luis Obispo; Menon, Unny, California Polytechnic State University, San Luis Obispo; Tseng, Marilyn, California Polytechnic State University, San Luis Obispo; Smith, Tyler, California Polytechnic State University, San Luis Obispo

In this study, we examined the implementation and effectiveness of online textbooks in three different undergraduate engineering courses. The courses varied

in their level of technical course content: the first course covered general theory and case studies, the second course included both theory and numeric solutions, and the third course focused primarily on numeric and symbolic solutions. We compared students' attitudes using surveys with Likert-type and open-ended questions conducted at three time points during the academic quarter, and we also examined student performance with pre- and post-course concept inventories. Significant differences were found across the three online textbook courses on multiple survey items measuring students' usage and attitudes ($p < .001$). Preliminary findings suggest that student interaction with and attitude toward online textbooks differed based on the technical complexity of the course, with student attitudes less favorable toward online textbooks in more technical courses. During the conference session, participants will have the opportunity to view the online textbook interface and actively discuss the implications of these findings for online textbook usage across the curriculum.

2330-4 1:30 p.m.–2:00 p.m.

A Modular IT Literacy Course for the Internet Era

Larry Press, California State University Dominguez Hills

Kemeny and Kurtz conceived of the IT literacy course in the 1960s. Their curriculum was tailored to timesharing systems, an emerging platform for application development and delivery at that time. The IT literacy curriculum was revised for the PC and is being revised again for the Internet era. While the course has changed, the goal has not. It is to teach the IT skills and concepts an undergraduate needs for success while in school and after graduation as a professional and a citizen.

I am working on a curriculum that includes skills in content creation (text, image, audio and video) and using network services to build simple applications. The concepts portion covers information technology, the characteristics of various applications and their implications for individuals, organizations and society.

I have created a modular electronic text for the course. Each module follows a standard format and has a unique URL. I currently have over 100 modules, which are roughly equivalent to textbook sections — we cover around 7 modules per week. During the first half of my presentation, I will outline my curriculum and demonstrate the electronic text and its features by looking at one of the modules.

With that background established, we will break into small groups to brainstorm topics that should be covered in an IT literacy course—what are the skills and concepts every undergraduate student needs to succeed? We will report those back to the group, but, more important, I will collect and place them on a wiki where the group and others can continue to extend and refine them after the conference ends.

2330-5 2:10 p.m.–2:40 p.m.

Virtual Crits: Using technology in Design Studios

Cesar Torres-Bustamante, California Polytechnic State University, San Luis Obispo

Design studios are built around a framework in which communication is essential in the design learning process: students communicate with one another and receive comments from the tutor. This setting has a long tradition in architectural education (Boyer and Mitgang 1996), and is used in related disciplines such as Landscape Architecture and Urban Studies.

Donald Schon (1985) proposes the architectural model as an educational model for reflection-in-action, and suggests that studio-teaching method could be generalized to all professional education. The assessment of studios is frequently a lengthy process in which a panel of critics (invited guests and peers) engages with individual student presentations. In these reviews, one student sets up his or her presentation that consists of printed panels and other media as models, films, etc. The student has limited time to present the project, followed by a discussion with the panel. In these reviews, critics and students meet at a gallery or exhibition space, and the schedule for presentations is defined on reviewers' availability.

Would it be possible that critics review projects at the time and place of their choice? Could they review only one project one day (lets say during their lunch break) and do another review at some other time? Can they review student's work from home instead of meeting at a gallery? This paper will share findings from 'virtual crits', a project that uses technology to reach reviewers regardless of physical or temporal availability. By using a video-sharing web site (YouTube) and online forms (Adobe Acrobat) Virtual Crits allowed reviewers to comment on student projects at their own time and pace. However the proposed assessing system posed some technological difficulties for students and reviewers, impacting in response times, exchange of ideas and follow ups.

2330-6 2:50 p.m.–3:20 p.m.

Using a Group Decision Support System to Support Collaborative Learning

Minder Chen, California State University Channel Islands

Many e-learning technologies support the delivering of teaching materials and lectures online. However, most of them do not support the problem-solving process and collaboration of students working together as a team. The author will present the design and implementation of a group decision support system (GDSS) called TeamSpirits. The system can be used in same-time same-place or different-time different-place settings to support in-class discussions or virtual sessions. The underlying group problem-solving process is referred to as meeting. The

system will allow instructors to design class discussions as a series of group activities within a meeting representing a group problem solving process. The functionalities and individual group tools (e.g., brainstorming, structured brainstorming, rating, ranking, multi-criteria decision making tools) in TeamSpirits will be described. The administration environment for the facilitator to manage the online class meeting will be demonstrated. An example of using the system for a group case study of an online course will be presented. Participants are encouraged to share their thoughts on how the system can be used for online instruction or hybrid courses. Other GDSS tools will be reviewed briefly. A live-demo of the system with participants who have computer and Internet access will be conducted. Potential benefits and challenges in deploying and using the system will be discussed.

2330-7 3:30 p.m.–4:00 p.m.

The Librarian and the Professor: A Partnership Designed to Enrich Our Classrooms with the Trove of Information Proprietary Databases Offer

Julie Shen, California State Polytechnic University, Pomona, and Dr. Kevin Farmer, Management & Human Resources Department, College of Business Administration, California State Polytechnic University, Pomona

Many of our students will become knowledge workers who will be called upon to make decisions in increasingly more ambiguous environments fraught with conflicting interests that must be balanced. They need a deeper level of learning that what standard textbook study and lecture currently afford. To enable them to deal with the complex environment they will live and work in, a librarian and professor formed a partnership to teach students how to practice the art of information acquisition, synthesis and application through written and oral assignments that allow them to master proprietary database research. Most importantly, we found that students who accept the professor's encouragement to consult the librarian on these assignments engage in frequent, richer interactions with both that lead to papers and debates showing higher order reasoning. An example of the database and citation tutorials we deliver will be given followed by a hands-on exercise designed to allow participants to utilize a cutting edge database we will explain. The session will conclude with a discussion of our students' feedback on the tutorials as well as their success with the database research and citation skills they acquire as measured by their research paper and oral debates.

Room 2480 Schedule

Time	Title
10:05 a.m.	<i>Getting Students to Practice What We Teach in the Real World</i>
10:45 a.m.	<i>Utilizing Survey Research to Improve Learning in a Political Science Methods Course</i>
11:25 a.m.	<i>iPad: Tool or Toy?</i>
Noon Lunch	<i>Lunch with Live Music</i>
1:30 p.m.	<i>Managing the Learning Environment: Strengthening Student Engagement</i>
2:10 p.m.	<i>Assessing Student Learning Improvements after a Course Modification: Can We Learn from Traffic Engineers?</i>
2:50 p.m.	<i>Providing Evaluation Data on Prior Semester Teams' Performance Directly to Current Students</i>

2480-1 10:05 a.m.–10:35 a.m.

Getting Students to Practice What We Teach in the Real World

Thomas Norman, California State University Dominguez Hills

This presentation showcases the work of three classes that took what they learned in a management class about interviewing job candidates effectively and then left the classroom to practice these new skills in a real world setting. Over 200 CSUDH students have shared 3-4 hours of their time in a community service project that has helped more than 1,000 LA area high school students improve their job readiness through a mock-interview workshop.

CSUDH students describe this as one of the most profound learning experiences in the management concentration. Some realize that in spite of their shyness they could envision a job as a recruiter. Others find it very enlightening to see what it feels like on the other side of the table. Nearly all of them leave with a new appreciation for just how difficult this process is for both hiring managers and job seekers.

Session attendees will receive details on this one idea and other examples of how the CSUDH Management Department gets students to practice what they have learned in real world settings including collecting data on current management practices, consulting to public and non-profit organization and service learning projects. Some qualitative data about the reaction to these activities from students and our College Advisory Board will be shared.

2480-2 10:45 a.m.–11:15 a.m.

Utilizing Survey Research to Improve Learning in a Political Science Methods Course

Shana B. Bass, California State University San Marcos

Throughout 2007-09, the Political Science department at CSU San Marcos assessed our required research methods course: PSCI 301–The Practice of Political Research. PSCI 301 covers basic research design and methods and despite our best efforts, our students struggled with this course every semester. Moreover, we were concerned that persistent student difficulties in this gateway research fundamentals course would impact overall student success in the major. As one of the primary instructors for this course, I undertook a two-year assessment project to identify gaps in student mastery and then alter curriculum and assignments to improve student learning. In 2007-08, using the pre-test/post-test model and assessment of examinations, I discovered that while students could identify most of the building blocks of research in examples, they still struggled with writing their own research questions, hypotheses, and variables and identifying specific evidence that would confirm/disconfirm hypotheses. These fundamentals are the foundation of any successful research project. To address these weaknesses, in 2008-09 I designed and implemented a new curriculum that emphasized practice, understanding connections, and application of fundamental research concepts in the context of a semester-long survey research project around the theme of the 2008 Presidential Election. The Fall 2008 Exit Poll Project provided students the opportunity to develop original research questions, hypotheses, and variables. Students then created and implemented their own exit poll survey to gather data and test their hypotheses. Finally, students analyzed their data and presented their survey results in both oral and written form. I assessed student learning of these fundamental concepts using a general pre-test/post-test model and assessment of the midterm and final exams and the final survey project paper. The results showed significant improvement in both student mastery of fundamental research concepts and ability to write a successful research design.

2480-3 11:25 a.m.–11:55 a.m.

iPad: Tool or Toy?

Erik Slayter, California Polytechnic State University, San Luis Obispo

Apple's iPad was released in April 2010. By September 2010, there were 25,000 iPad specific applications in the App Store, but a large quantity of apps does not automatically make the iPad a tool. Many of the available apps are games or are strictly for entertainment value. This discussion session explores apps that transform the iPad into a tool that can be used daily in the classroom. Some useful apps include the following.

Note Taker HD by Software Garden, Inc. sells for \$5 is game changer for the iPad in the classroom. This app turns the iPad into an interactive whiteboard and can provide a much richer learning experience for our students by allowing for annotation of documents and easy distribution of class notes.

Quickoffice Connect Mobile Suite for iPad by Quickoffice, Inc. sells for \$15 and allows for basic editing of Microsoft Word, Excel, and PowerPoint files.

Inkling by Standard Nine, Inc. and eTextbooks by CourseSmart, LLC are both free apps that provide textbook access with varying degrees of success (to date).

2480-4 1:30 p.m.–2:00 p.m.

*Managing the Learning Environment:
Strengthening Student Engagement*

Nitika Parmar, California State University Channel Islands

Strengthening student engagement in classrooms has a strong positive impact on achievement and the overall learning process. Although several compelling factors contribute to enhancing student engagement, such as innovative instructional skills and effective classroom management, these are only the first rational steps in this process. Increasing student interest and participation on-site is dependent on creating a culture of accomplishment, a culture that reflects support and encouragement from the instructors that brings the best out of each student via the establishment of a one-on-one relationship. Pedagogical elements that are known to create an active learning environment include the development of a rigorous curriculum, use of relevant learning strategies, establishment of an ideal classroom environment, as well as focus on personalized learning. Although rewards and incentives have been shown to stimulate student input, there is nevertheless concern in this area. An engagement-based teaching approach relies not only on the cognitive abilities of students but also on their

emotional and behavioral maturity. An instructor has to take responsibility for student engagement practices and has to consistently learn new skills and habits that are conducive for positive reinforcement. Unique strategies that have proven successful both in lecture and lab classrooms in the biological sciences are discussed and will provide a framework for laying the foundation for increasing student motivation and confidence via dynamic engagement practices. Key examples that have significantly improved student learning and revived an interactive classroom will be presented. These strategies can be suitably tailored for implementation in other disciplines as well.

2480-5 2:10 p.m.–2:40 p.m.

*Assessing Student Learning Improvements
after a Course Modification: Can We Learn
from Traffic Engineers?*

Anurag Pande, California Polytechnic State University, San Luis Obispo

The safety evaluation of any traffic engineering treatment applied to an intersection should compare the observed number of crashes on that intersection after the treatment with the number of crashes that would have occurred in the after period had the treatment not been applied. The naive before-after study involves simple comparison of crash frequencies between the before and after periods at the treatment site. However, due to a variety of reasons, the number of crashes in the before period by itself is not a good estimate for 'number of crashes that would have occurred in the after period had the treatment not been applied'. Hence, a simple before-after comparison can lead to inaccurate and potentially misleading conclusions. Similarly, if one makes significant changes to one's course (for example, visual aids or delivery style) naive comparisons of students' test scores before and after the changes can lead to erroneous conclusions.

For the empirical Bayes method in the area of traffic safety, the expected number of crashes at the treatment site in the after period had the treatment not been made, is estimated from two different clues: (1) the crash history of the treatment site and (2) the crash frequency expected at reference sites. For student learning assessment, one needs to try to estimate what the student performance would have been without the course changes based on (a) the student's performance in the other classes by the same instructor delivered with the old method and (b) the expected performance of their reference peers (peers with 'similar' characteristics). In my presentation, I will provide a detailed look at the literature for assessing student learning after adaptation of a new instruction methods and then discuss the data needs for the empirical Bayes method. I will provide the data that one needs to collect to apply this method in the context of the traffic engineering class that I revised after joining Cal Poly.

2480-6 2:50 p.m.–3:20 p.m.

***Providing Evaluation Data on Prior Semester
Teams' Performance Directly to Current
Students***

Wayne Smith, California State University Northridge

The College of Business at CSU Northridge requires a “Gateway” course of all business juniors. This course uses the case-study method and is interdisciplinary in nature. Additionally, students strengthen their writing, presentation, and spreadsheet literacy skills, and they are introduced to strategy and ethical decision-making. Students are placed into permanent teams at the second class meeting.

Entire academic and professional literatures exist on the subject of evaluating small-group, team-based performance. Advanced qualitative and quantitative methodologies and metrics exist to analyze team performance, but these serve chiefly to advance research, not to directly and contemporaneously engage students and subsequently evince high-performing teams. Also, there are diminishing returns to giving the students more (decidedly passive) reading, even strong theory regarding small-groups, and extending the syllabus

with more pages, elaborating on yet another skill that students need to know and do well. Another issue is that students in modernity may inadvertently conflate “social” networking with “intellectual” networking. And finally, faculty increasingly operationalize various assessment tasks on a recurring basis, but a key piece is missing—we don’t often show summative or formative evaluation results, much less our interpretation of the results, directly to our existing students during regularly-scheduled contact hours.

I have discovered that team performance is enhanced when I augment my “narrative (traditional) syllabus” with a “data-driven (visual) syllabus.” For this intervention to have a positive, marked impact, I need outcomes-based data, which means existing students-in-teams benefit by viscerally internalizing the results (appropriately pseudo-anonymotized) from prior students-in-teams in a similarly situated curricular environment. Related decisions, such as when to show and discuss such data, and in what form the data should take (simple charts and diagrams), are also important. Perhaps somewhat originally, I also depend on a “network analysis” of the students’ end-of-semester, peer-evaluation narratives to corroborate more traditional, positivist measures of team performance.

Room 2490 Schedule

Time	Title
10:05 a.m.	<i>Bridging Inter-disciplinary Research and Teaching: Case Study from Music and Economics</i>
10:45 a.m.	<i>Exemplify to Fortify: Using Discipline Content to Enhance Information Literacy Skills</i>
11:25 a.m.	<i>The Unorthodox Approach in Interdisciplinary Courses—Changing the Way that Students Think</i>
Noon Lunch	<i>Lunch with Live Music</i>
1:30 p.m.	<i>Promoting Democratic Thinking through Interdisciplinary General Education: Benefits, Challenges, and Practices.</i>
2:10 p.m.	<i>Integrate People, Not Only Contents</i>
2:50 p.m.	<i>Our Duet: Collaborating and Co-Teaching across Departments to Improve Student Outcomes</i>

2490-1 10:05 a.m.–10:35 a.m.
Bridging Interdisciplinary Research and Teaching: Case Study from Music and Economics

Mtafiti Imara, California State University San Marcos and
 Ranjeeta Basu, California State University San Marcos

In this session we plan to discuss our particular experience with doing interdisciplinary research and ways of transferring lessons learned from that experience to our teaching. We hope that in the process of doing that we will develop strategies that can be generalized to any course or set of courses. A couple of years ago, we, (Mtafiti Imara -Music and Ranjeeta Basu - Economics), started working on an interdisciplinary research project that focused on three objectives: 1) to develop an interdisciplinary theory of the relationship between tourism and music culture; 2) to use this theoretical framework to assess the impact of tourism as a state sponsored trade policy on music culture in general, and in Goa, India in particular, and 3) to provide a unique research experience for undergraduate students to test this theory in a local setting e.g. the San Diego region. To achieve the third goal we plan to teach a set of paired courses in the fall—one in Economics and the other in Music. Students from the two courses will work together to interview tourists, musicians and managers of tourist locations in the San Diego area. Students will be brought together for several class sessions so that they can learn about the economics of tourism as well as aspects of music culture. Based on our own experiences with doing interdisciplinary work we will design several collaborative exercises for students to not only foster an understanding of the value of inter-disciplinarity but also to learn practical ways of how to do it. They will learn to combine and apply quantitative and qualitative research methods from both our disciplines. We hope that students

will realize the importance of using interdisciplinary approaches to understand the world around them. In the process, we hope that they will develop their own learning/research community.

2490-2 10:45 a.m.–11:15 a.m.
Exemplify to Fortify: Using Discipline Content to Enhance Information Literacy Skills

Christina Sheldon, California State University Los Angeles

Do your students have problems recognizing a peer-reviewed source? A primary source? Trouble assessing better authority over worse in content located on the World Wide Web? You can help them with these skills while introducing authentic course content. This session will demonstrate how to use documents relevant to a course topic in a comparative exercise that mimics the choices students typically grapple with in completing research. Sample documents are pre-vetted by a librarian or professor and determined to hold topical relevance, yet raise minor questions regarding the documents' suitability for use on class assignments. Student teams then examine, compare, and evaluate the documents for authority, currency, and structural clues regarding the content's legitimacy in an academic context, while simultaneously improving upon content comprehension. Through exemplification and application, faculty and students collaborate in active learning that keeps the syllabus on track and strengthens critical thinking competencies. The lesson can be tailored to content in any discipline—humanities, social sciences, or natural sciences—and may be implemented in face-to-face or online instruction scenarios. Help fortify student success on both course objectives and the aptitudes of life-long inquiry!

2490-3 11:25 a.m.–11:55 a.m.

The Unorthodox Approach in Interdisciplinary Courses—Changing the Way that Students Think

W. Britt Leatham, California State University San Bernardino

To instruct is to provide “structure” to or within a subject. This structure in the form of curricular design and pedagogical practice can either enhance or detract from desired course outcomes. Interdisciplinary and capstone courses are commonly offered in formats representing typical didactic teaching-styles that are very much faculty-, rather than student-centered. Typical course structure includes a series of PowerPoint™ presentations and/or lectures; a set of readings and/or text on the topic; followed by objective (e.g. multiple-choice) midterm and final examinations, which allow very little student construction of the knowledge base. And in this case, the knowledge base is definitively built around the typically coordinated approach of instructors using the course’s chosen text as the main academic resource.

Faculty-centered teaching seems to spawn a tendency amongst students to want to meet the expectations and knowledge base of the instructor/text. This type of approach essentially overemphasizes deductive reasoning skills, and diminishes thought-process skills (primarily inductive reasoning, correlation, analysis, discovery, and creativity) that have the greatest impact on producing societal change.

Evolution from a faculty-centered to a student-centered approach is the first step to producing systemic change, and to producing desired student outcomes associated with interdisciplinary and capstone courses. Those outcomes include the acquisition of thought-based skills of critical thinking, analysis, reasoning, scholarly research, evaluation, correlation, creativity, discovery, and developing perspective. These types of courses also allow students to discover/rediscover the knowledge base upon which their interdisciplinary nature relies. However, the course must be appropriately structured. Practical tested methodologies in integrative science courses can be used as models for affecting pedagogical change and help achieve desired student outcomes. Basically, you can’t give away what you don’t have. And how you give it away matters.

2490-4 1:30 p.m.–2:00 p.m.

Promoting Democratic Thinking through Interdisciplinary General Education: Benefits, Challenges, and Practices.

Hend Gilli-Elewy, California State Polytechnic University, Pomona and Stahl, Ken, California State Polytechnic University, Pomona

Democracy and U.S. higher education is not a new topic of course, going back to Dewey if not before, but it has recently experienced renewed attention in curricular changes involving civic engagement, service learning, and global citizenship. What is democratic thinking? What are the skills and habits of mind that promote it in an increasingly interrelated, diverse world? How shall we teach democratic thinking? Martha Nussbaum, in her recent *Not for Profit: Why Democracy Needs the Humanities*, as well as others argue that critical thinking, understanding others as humans not abstract ‘Others’, creativity, the relationship between the thinking of an individual and the thinking of a community’—among other things— all play an important role in teaching for civic and democratic engagement. Our presentation will explore ways in which general education grounded in the liberal arts can and should promote democratic thinking and democratic values and help students develop what Kuhn (2005) calls “the cognitive capabilities that enable citizens to participate in the ongoing debate that democratic societies require.” To effectively educate for democratic thinking we need to go beyond mere acquisition of knowledge and promote practices and skills of engagement. By providing concrete examples of practices employed in our courses and capstone projects, the Interdisciplinary General Education program (IGE) at Cal Poly Pomona, the presenters will share three main concepts: 1) Building a community through a cohort; 2) Engaging students’ personal connections and empathy, and 3) Practicing liberal arts pedagogy through student-centeredness. The presenters will also share assessment data reinforcing these practices for student success not only in our courses, but also in the rest of their university careers, and beyond. Finally, we will involve the audience in an interactive discussion.

2490-5 2:10 p.m.–2:40 p.m.

Integrate People, Not Only Contents

Priscilla Liang, California State University Channel Islands
and Huang, Nian-Sheng, California State University Channel
Islands

A truly interdisciplinary course integrates not only contents, ideas, and approaches from two or more disciplines, but also students and professors from diverse fields of studies. This presentation utilizes BUS/HIST 339 Business in China: Heritage and Change to demonstrate how to achieve such interdisciplinarity by implementing student centered learning that focuses on students' needs, abilities, and learning styles.

The presentation will discuss three useful strategies we applied in this team-taught class:

First, we integrated student needs into our teaching agenda. Anticipating that students from history and business could have very different learning objectives, we conducted a survey to understand student interest in learning about China and revised the course syllabus accordingly.

Second, we taught the course in a language acceptable by all students and developed various teaching methods to accommodate their individual learning styles. We quickly discovered that common terms and concepts in one discipline were not necessarily understood by students in another. Therefore, in addition to explaining them during lectures, we also built a “Discipline Specific Glossary” to aid students learning.

Third, we tried to break the disciplinary boundaries as much as possible so students would have maximum gain from this interdisciplinary experience. We carefully developed course objectives, contents, assignments, and schedules in order to present the course as one coherent unit. For example, we co-designed “Weekly Discussion Assignments” that blend questions from both business and history. During the process of answering these questions, students learned that Chinese business practices and economic achievements today are strongly influenced by the historical events and cultural development in the past (We will give fun quizzes about Chinese history, culture, and business practices to illustrate this very point to our audience in our presentation).

These strategies have greatly benefited our students and we hope they can be useful to others as well.

2490-6 2:50 p.m.–3:20 p.m.

Our Duet: Collaborating and Co-Teaching across Departments to Improve Student Outcomes

Dr. Wendy Murawski, California State University Northridge,
Friedman Narr, Rachel, CSU Northridge; Ziolkowska, Renee,
CSU Northridge; Spencer, Sally, CSU Northridge; O’Rode,
Nancy, CSU Northridge; Gallagher, Maggie; CSU Northridge;
Burststein, Joyce CSU Northridge; Hsu- KIN, Sharon, CSU
Northridge; Skylar, Ashley, CSU Northridge

Collaborative teaching, also known as co-teaching, is on the rise in K-12 schools. Co-teaching involves the “co-planning, co-instructing, and co-assessing” of students in a shared classroom. The goal of co-teaching is to take the expertise of two professionals in order to benefit students academically, behaviorally, and socially. By planning and instructing together, teachers are able increase differentiation techniques, use a variety of instructional approaches, and share their knowledge to help students succeed in the class.

However, while K-12 educators are being increasingly expected to collaborate with their colleagues, university professors do not typically teach outside of their departments and rarely with other faculty. At California State University, Northridge in the Michael D. Eisner College of Education, university faculty have decided to practice what we preach related to collaboration and co-teaching. We are slowly changing past practice by collaborating within and across departments. Increased collaboration through various grants and projects has increased willingness to co-teach individual classes and entire courses together. This session will share how we have begun co-teaching some of our education classes, as well as our data collection, formal and informal results. The increased collaboration has led to improved student success in multiple departments. Students report having a greater respect for different frames of reference, as well as a better understanding of how to actually collaborate and co-teach due to the model presented to them. Presenters will share their various perspectives and experiences with co-teaching (ranging from novice to expert), and will engage participants in a discussion of the difficulties, logistics, and outcomes. Presenters will model co-teaching through their presentation so that participants can experience different instructional approaches and have a lower student-teacher ratio for discussions. There will be a high level of engagement, so be prepared to have fun!

“CRACKER BARREL - TEN THEME SESSIONS”
(Gather around table(s) of interest.)

- 1. How Many Ways to Compose the “Symphony of Success?”*
- 2. High Impact Practices: Undergraduate Research (I) and Service Learning, Citizenship, and Community Engagement (II).*
- 3. Deep Learning and Developing Skills for Dealing with Complexity.*
- 4. Engagement in On-site classes. Why is Engagement Important?*
- 5. Teaching for the 21st Century: What Constitutes Good Use of Instructional Technology?*
- 6. The Assessment Question: “Are Students Learning What We Teach, and Are We Teaching What We Advertise?”*
- 7. Interdisciplinary and Capstone Course Experiences: What Can Students Gain from These?*
- 8. General and Liberal Education: “What Are the Challenges; What Are the Benefits?”*
- 9. Information Literacy: How Can Students Master the Needed Information Systems?*
- 10. Wild Card Session: “Other Instruments for Orchestras!”*

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Some Restaurants in Nearby Camarillo

American Cuisine

California Grill – 67 East Daily Drive, Camarillo – (805) 987-1922

- Marie Callender's – 185 East Daily Drive, Camarillo – (805) 987-5580
- Panera Bread – 640 Ventura Boulevard, Camarillo – (805) 484-1414
- Safire – 4850 Santa Rosa Road, Camarillo – (805) 389-1227
- Souplantation (Soup, Salad, & Bakery) – 375 West Ventura Boulevard, Camarillo – (805) 389-3500

BBQ/Bar/Grill

- Bandits' Grill and Bar – 1980 Ventura Blvd., Camarillo – (805) 445-4742
- The Habit Burger Grill – 1855 Daily Drive, Camarillo – (805) 484-2950
- JJ Brewsky's – 2433 Ventura Blvd, Camarillo – (805) 482-5249
- Wood Ranch BBQ & Bar – 1101 East Daily Drive, Camarillo – (805) 482-1202

Fast Food

- In-N-Out Burger – 1316 Ventura Boulevard, Camarillo – (800) 786-1000
- Johnny Rockets – Ventura Blvd, Camarillo – (805) 383-1888
- Presto Pasta – 1701 East Daily Drive, Camarillo – (805) 445-7737

Italian

- Bistro 13 – 4910 Verdugo Way, Camarillo – (805) 383-3388
- Ottavio's Italian Restaurant – 1620 Ventura Boulevard, Camarillo – (805) 482-3810
- Verona Trattoria – 2485 Ventura Blvd, Camarillo – (805) 383-7576

Japanese

- Yama Japanese Restaurant – 734 Arneill Road, Camarillo – (805) 484-0321
- Yamato Restaurant – 1901 East Daily Drive, Camarillo – (805) 383-9000
- Yomama Sushi – 4900 Verdugo Way, Camarillo – (805) 384-0667

Mexican

- Bobbi's Mexican Food – 302 North Lantana St # 45, Camarillo – (805) 484-0103
- Los Arroyos Mexican Restaurant – 630 Ventura Blvd # 1217, Camarillo – (805) 987-4000
- Olas Mex Grill – 1860 Ventura Blvd, Camarillo – (805) 484-5566
- Snapper Jack's – 4850 Verdugo Way, Camarillo – (805) 384-0334

Thai

- Sawadee Thai Restaurant – 217 Arneill Rd Camarillo 93010 –(805) 482-8009
- Charn Thai Restaurant – 65 E Daily Dr Camarillo, CA 93010 – (805) 388-1138

Other

- Sheila's Wine Bar and Café – 330 North Lantana Street Camarillo 93010 (805) 987-9800
- Café India (Indian) – 1775 East Daily Drive, Camarillo – (805) 987-8537
- Lure Fish House (Seafood) – 259 W Ventura Blvd, Camarillo – (805) 388-5556

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