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Recommended Citation

Jany, Carmen; Roman, Alexandru V.; Long, Thomas; Gallegos-Ruiz, Maria; Leh, Amy; and Kohout, Michal, "Jany, Roman, Gallegos-Ruiz, Long, Leh, Kohout FLC 14" (2014). *Faculty Learning Communities*. 3. <https://scholarworks.lib.csusb.edu/trc-learning-comm/3>

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Carmen Jany, Alexandru V. Roman, Thomas Long, Maria Gallegos-Ruiz, Amy Leh, and Michal Kohout

CIG Group on Interdisciplinarity: Final Report

We were working together as a group of six faculty for a year to develop a definition of interdisciplinarity, to create and implement individual interdisciplinary projects in our classes, to assemble a list of best practices, and to survey interdisciplinary programs on campus. First, we started out by defining what interdisciplinarity means. For that we read and discussed “Interdisciplinary Learning and Teaching in Higher Education” and came up with the following list:

- integrative problem-solving
- creativity: create new disciplines
- challenges conventional practice and thinking
- application of (multiple) discipline-specific practices to solve problems and shift habits of seeing things
- a practical component should always be included in such programs; this includes service-learning opportunities which drive the creative process
- Key: learning through integration of various disciplines

We held one workshop in the Fall 2014 where each of us presented our individual projects. The workshop was intended to provide faculty with ideas for developing interdisciplinary projects and activities. A second workshop together with the group on integrative learning is planned for the Winter 2015.

Our group members included:

- Alexandru Roman, Business Administration
- Antonieta Gallegos-Ruiz, Spanish
- Tom Long, History
- Amy Leh, Educational Technology
- Carmen Jany, Spanish
- Michal Kohout, Geography

The final reports of the individual projects are presented here, followed by a list of best practices and the results of the survey of interdisciplinary programs on campus.

Community Inquiry Group Final Report

Name: Alexandru V. Roman
Position: Assistant Professor
Department: Public Administration
College: College of Business and Public Administration
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Phone: 909.537.5762

Course Catalogue Description:

PA 463 Governmental Budgeting - role of the budgetary process in government management, the public sector environment of budgeting, budget formulation and administration.

Project Description:

Students were tasked with researching and writing an interdisciplinary research paper on a governmental budgeting topic or issue. Students were expected to step outside their own field and discipline and bring in knowledge and perspectives from other fields such as political science, ethics, economics or psychology. For instance, students could use psychology perspectives to analyze what types of taxes individuals are more “willing” to pay. (Just in case that you are wondering ☺ - individuals are more willing to pay multiple small taxes rather than one large tax, even if they are equal in value, and are also more willing to pay taxes if they are subtracted in small increments rather than one lump sum, such as it is the case with the property tax).

Background, Rationale and Motivation:

Many, students inclusive, unwarrantedly believe that government budgeting is solely a technical field of study. While budgeting has indeed a technical nature, it is much more than that. Budgeting, as Aaron Wildavsky has famously pointed out, is much more about politics and people than it is about numbers. Yet, most fail to realize the latter. They also fail to appreciate how human psychology and politics often trump financial considerations and rational decision-making within the budgeting process. Only by assuming an interdisciplinary approach can one develop a genuine and representative understanding of the complex nature of governmental budgeting. In many ways governmental budgeting cannot be understood without embracing interdisciplinary lenses.

Evaluation:

The effectiveness of the approach was evaluated both qualitatively (content analysis) and quantitatively (survey). Students work was critically reviewed for quality and improvement in understanding and learning. Furthermore, students were also asked to voluntarily complete an exist survey which sought to estimate the degree to which learning goals were achieved.

Outcomes and Results:

Overall the interdisciplinary research project enhanced student learning. Students developed an improved understanding of governmental budgeting and it appears that they have enjoyed the course and the project more than they would have otherwise. While learning improvement were evident, they were not necessarily significant in size or impact. There is insufficient information to determine the statistical significance of the results; neither the research design nor the collected data permitted such elaborations.

Challenges in Implementation:

- It is challenging to develop a clear and meaningful understanding of what “interdisciplinary” means and how it can be genuinely attained.
- Students have an extremely difficult time stepping outside the comfort zones imposed by their disciplines.
- Students have a difficult time developing and maintaining an “interdisciplinary habit of mind.”
- The campus offers few resources/opportunities (both for students and faculty) to engage in interdisciplinary learning.
- Interdisciplinary learning is significantly more time intensive which, given the nature of our student population, might become prohibitive for some.
- There are very few accessible and useful (clear) data, information and research sources that faculty can readily draw upon.

Lessons Learned and Best Practices:

- Dedicate time to teaching “disciplinarity” (do not assume that students will understand it if left to their own devices).
- Practices, through case studies or class exercises, interdisciplinary thinking.
- Provide clear instructions and examples of what is interdisciplinary and what is simply multi-disciplinary.
- Teach students to challenge discipline-based, taken-for-granted, assumptions and perspectives.
- Teach students the ability to identify and critically evaluate discipline-imposed blinders.

Community Inquiry Group Final Report

Name: Antonieta Gallegos-Ruiz
Position: Professor of Spanish
Department: World Languages and Literatures
College: Arts and Letters
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Phone: 909.537.5858

Course Catalogue Description:

SPANISH 316D Spanish for the Professions-Business Oral and written practice terminology used in business in general.

Project Description:

The student project was carried-out in a three-part phase. The focus of this project was interdisciplinary since students were to select 2 areas of study in Accounting, Commerce, Finance and Marketing. In addition to understanding the subject matter, students will also understand how Spanish terminology in these areas differ from Standard Spanish to regional Spanish and from a Spanish speaking country to another. First, students were asked to submit a project proposal. Secondly, students were to present their initial research in the form of a PowerPoint oral presentation. In this presentation, they will present a list of working vocabulary in their chosen areas and provide a broad interdisciplinary view of the topic selected. This presentation also served as a basis for their research paper. The last phase, in their research paper, students were to expand the topic of their oral presentations giving it an interdisciplinary focus and mainly demonstrating how the Spanish terminology in the disciplines of choice differ from standard Spanish to the Spanish terms used in their selected country.

Background, Rationale and Motivation:

In courses where the specific focus is learning terminology, it is the standard practice to have students memorize terminology in a specific area. Oftentimes, in this type of approach, students learn the term without understanding the definition of the term. With this interdisciplinary approach, students gained “understanding” as Grant Wiggins and Jay McTighe point out in *Understanding by Design*. Moreover, the rationale behind this type of approach, as Wiggins and McTighe also point out, is that understanding facilitates the transfer of acquired knowledge and in order to use it creatively in a variety of scenarios in this instance, in the area of business. With their newfound understanding of the essential terminology in their chosen areas, students could apply that knowledge and understanding of the terminology in the target language while at the same time learn about culture.

Evaluation:

The effectiveness of the approach was evaluated both qualitatively (content analysis) and quantitatively (grade). Student’s work was critically reviewed not only for quality and improvement in understanding and learning, but also their use of the target language (Spanish). Their oral presentation grade and research paper grade were based on content (how well the understood their areas of choice) and form (the application in written expression in the target language).

Outcomes and Results:

There is no doubt, the interdisciplinary research project enhanced student learning. Students developed knowledge and understanding of the meanings behind the terms in the areas of Accounting, Commerce, Finance and Marketing. With this interdisciplinary focus, a new dimension as well as a new dynamic was added to the teaching and the learning process of Spanish business terminology, which would otherwise, sporadically, appear to be a boring. The oral presentations in the various areas kept the students interested and it was by these presentations that students acquired a lot more terminology in all areas under study.

Challenges in Implementation:

- Students found it difficult to think of topics for their projects since they were not expecting to think topics other than Spanish.
- Students needed constant guidance in finding topics of interest and as a result interdisciplinary learning time was intensive for all involved.
- Student guidance was made difficult because of class size (28 enrolled).
- Professors’ knowledge limitations of related interdisciplinary subject matter may be difficult to provide meaningful guidance.

Lessons Learned and Best Practices:

- Do not assume that students are acquiring understanding of interdisciplinarity by covering more course material.
- Provide clear explanations on the differences between multidisciplinary and interdisciplinary.
- Design assignments that will serve as “spot checks” to insure that students are focusing on interdisciplinary topics.
- The three-phase method applied in this course appeared to have strengthened each student’s language skills and acquired some understanding in the areas of Accounting, Commerce, Finance and Marketing.

Community Inquiry Group Final Report

Name: Amy Leh

Position: Professor

Department: Educational Leadership and Technology

College: College of Education

E-mail: aleh@csusb.edu

Phone: 909.537.5692

Course Catalogue Description:

EDUC607 Introduction to Educational Research. Introduction to the vocabulary, design, and sources of quantitative and qualitative methodologies, and to program evaluation research in education. Ethical strategies for collecting, treating, and reporting data are emphasized; research reports and identifying, developing and critiquing trends in research communities. (4 units)

Background, Rationale and Motivation:

Many academic programs are available in the College of Education to prepare professionals to become or to be better teachers while Educational Leadership program prepares professionals to become school principals. Traditionally the power and authority to lead the teachers is resting with the principals alone. However, recent changes in schools require teachers to take on some leadership roles, e.g., leading or mentoring their peer teachers. As a result, the program of Teacher Leadership was born to prepare teachers to become leaders while they do not necessarily have power as school principals do. Teacher Leadership (TL) is a relatively new field of study that is still evolving. The newly developed TL program at CSUSB is interdisciplinary consisting of four areas: organizational leadership, learning/teaching, technology leadership, and inclusive education. Due to the interdisciplinary nature of the program, the program courses are taught by faculty from all departments rather than one department/program.

Project Description:

Students learned educational research methods (quantitative and qualitative approaches) and teacher leadership, especially, the standards and domains developed by the Teacher Leadership Exploratory Consortium. Students conducted action research to solve a problem/challenge in their schools or school districts.

Evaluation:

I am currently teaching the course this quarter. The effectiveness of the approach has been evaluated qualitatively focusing on student work and online discussion.

Outcomes and Results:

Overall the interdisciplinary action research project has been supporting student learning. Students have been forming and cultivating an online community in which they deal with a variety of issues, e.g., professional development, technology use, autism, language learning, parent involvement, community involvement, and teacher retention.

Challenges in Implementation:

I experienced the following challenges as stated by Alexandru:

- “It is challenging to develop a clear and meaningful understanding of what “interdisciplinary” means and how it can be genuinely attained.
- The campus offers few resources/opportunities (both for students and faculty) to engage in interdisciplinary learning.
- Interdisciplinary learning is significantly more time intensive which, given the nature of our student population, might become prohibitive for some.
- There are very few accessible and useful (clear) data, information and research sources that faculty can readily draw upon.”

Furthermore, I experienced challenges because the course is an accelerated online course and does not give students ample time to process information that is needed for interdisciplinary work.

Dr. Thomas Long, History
CIG, Interdisciplinary Learning Report
2013-2014

The projects that I utilized for my Interdisciplinary Study were both in my History and Museum Studies Internship projects, in the 2013-14 academic year. The two projects both had 4 student participants and were done over a 2.5 quarters term. The academic level of the students in each project were graduating seniors and I required the students to respond to the following questions, which was, in effect, their final component for their internships (Anth 575; Hist 575).

The two projects were the development, design and installation of U.S. Military Medals exhibit at the Los Alamitos Joint Military Task Forces base and the development, design and installation of a Mobile Museum Exhibit at the Pechanga Cultural Resources Department on the history of the Temeku Village Site. The students were asked to consider to which extent they utilized the following, distinct, academic areas, in their respective internships: Education (in that that the exhibits “teach” the viewer about the subject matter). Business management (in that each exhibit was given a finite budget that the respective students had to stay within). Art (in that each exhibit consisted of an artistic design concept). History (in that each exhibit carried history as its common theme in its content). Each student was required to list on a 1-5 scale, 5 being the strongest, as to how they incorporated each respective component in their project.

Temeku Exhibit

	History	Education	Business	Art
Student 1	5	5	5	5
Student 2	5	5	5	5
Student 3	5	5	5	5
Student 4	5	5	5	5

Los Alamitos Exhibit

	History	Education	Business	Art
Student 1	5	5	5	5
Student 2	5	5	5	5
Student 3	5	5	5	5
Student 4	5	5	5	5

As I had informed the students of my project of analysis regarding the level of interdisciplinary activity in their service learning projects at the start and also spoke with them a few times over the course of their projects, I believe that they effectively told me what they thought I wanted to hear.

In an attempt to see whether or not I could effectively analyze the level of interdisciplinary activity in a student’s Public History and Museum Studies Project

in archival practices this fall term, I gave two students respective projects that would utilize the following disciplines: history, archival practices, linguistics and computer science (metadata construction). The two students worked on distinct projects that were on 2 distinct California Indian languages: Serrano and Luiseno. The one in Serrano was based entirely on the digitization of analog recordings of Serrano, while the one in Luiseno was predominantly on written notes. In both cases, the students were required to construct a searchable and catalogued electronic database. One student was a Junior in undergraduate standing while the other was a first year graduate student.

I, purposefully, did not tell the students about my project, until after they completed theirs'.

I found the results to be very balanced across the fields of Computer Science, Linguistics, Public History and Archival Practices. I did not attempt to quantify an exact ration, though via their presentations, it was obvious that all fields of endeavor were incorporated in order for them to achieve their results.

My findings, overall, do indicate to me that the level of interdisciplinary academic activity in our CSUSB Public History, Anthropology and Museum Studies internships is quite strong. In fact, I would argue that over the course of successfully completing one of the internships in these fields, students will invariably endeavor in more than 2 distinct fields of academics in order to achieve success in these active learning internships.

Community Inquiry Group Final Report

Name: Michal Kohout
Position: Associate Professor
Department: Geography and Environmental Studies
College: College of Social and Behavioral Sciences
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Phone: (909) 537-7325

Course Catalogue Description:

GEOG 322- United States-Mexico Border Issues- Introduction to US-Mexico border issues including the social interaction and processes that distinguish the area. Analysis will focus on the characteristics of everyday life as shaped by political, economic, and cultural issues from inside and outside the region.

Project Description:

Students were tasked with researching and writing an interdisciplinary research paper on a topic of their choice. I wanted students to work in pairs since they majored in many different disciplines which could ease their interdisciplinary collaboration. They were to choose a topic and apply two disciplinary perspectives in their analysis.

Background, Rationale and Motivation:

Frequently when examining various regional topics along the US-Mexico border we tend to take for granted a particular disciplinary perspective that informs our analysis. I wanted to foreground this disciplinary bias and get students to purposefully take on another disciplinary perspective to see what new information and analysis would result. The motivation comes from my own work on the border which has yielded many new perspectives as I have turned to different disciplinary perspectives. As a geographer I am used to reading widely and synthesizing diverse disciplinary perspectives. I wanted to impart this skill to my students in a formal way.

Evaluation:

The effectiveness of the approach was evaluated both qualitatively (content analysis) and quantitatively (grade). Students work was critically reviewed for quality and improvement in understanding and learning. Their paper grade, based on a grading rubric, is a quantitative representation of the quality of their work.

Outcomes and Results:

Overall the interdisciplinary research project enhanced student learning, but its impact was limited due to a lack of interventions in the research process on my behalf. Also based on the grades and my qualitative evaluation, it is difficult to make any conclusions about the effectiveness of the project, primarily because there was no pretest to gauge students' understanding of the topic they chose prior to writing their paper. Or, more appropriately, there is the methodological difficulty in assessing whether students would learn more writing a paper from one disciplinary perspective versus writing one with an interdisciplinary perspective.

Challenges in Implementation:

- Difficult to assess students' subject knowledge before starting an interdisciplinary project.
- Professors' knowledge limitations may make it hard for students to get the best interdisciplinary resources.
- Close monitoring of students' activities make interdisciplinary learning time intensive for everyone involved.
- Overcoming students' unwillingness or hesitation to engage in interdisciplinary learning.

Lessons Learned and Best Practices:

- Spend a significant portion of class time explaining and practicing interdisciplinary thinking through case studies and other class exercises.
- Demonstrate to students how interdisciplinary perspectives overcome disciplinary shortcomings or "blind spots."
- Closely monitor students' work to ensure they are practicing interdisciplinary research.
- Assign more structured assignments to allow less student freedom to stray off into multi-disciplinarity.

Community Inquiry Group Final Report

Name: Carmen Jany **Title:** Span 322 Origin and Contemporary Role of Hispanic Dialects
Class taught: Spring 2014 **Enrollment:** 26 students

Course Catalogue Description: History and description of existing Spanish dialects in Spain, North America, the Caribbean, Central and South America. Emphasis on forms, sound systems and functional meanings in various social contexts.

Project Description and Rationale:

Dialectology already combines linguistics and geography, as it examines linguistic features and places them on maps creating “isoglosses” (= a line on a dialect map marking the boundary between linguistic features). For this project, students were asked to examine the natural and political boundaries of geographic/dialectal areas in order to draw conclusions on why the isoglosses occur in certain places. Students were supposed to show the dialect boundaries on detailed maps in addition to presenting the features of a particular dialect. More specifically, they were encouraged to look at natural boundaries: mountains, lakes, rivers (using Google earth and other sources) and at political boundaries: countries and also political boundaries within countries. It was expected that examining the geography in addition to linguistic features would allow students to suggest explanations for why certain features change from one region to the next (e.g. no contact between the speakers, due to mountain range). In addition to geography, students were required to look at the historic events leading to the development of a dialect (e.g. migrations, political changes, natural disaster, etc). Students had to implement an interdisciplinary approach for their in-class presentations and for their final projects. It was made clear that they would be evaluated based on the inclusion of geography and history.

Evaluation:

The effectiveness of the approach was evaluated both qualitatively and quantitatively via an online survey administered immediately following the final exam on Blackboard. The survey consisted of 10 multiple-choice and 3 open-ended questions. The students’ final projects were also critically reviewed for including an interdisciplinary approach.

Outcomes and Results:

Overall, the interdisciplinary approach enhanced student learning as they were able to view dialectology through different lenses. However, it seems that students did not fully understand what an interdisciplinary approach means and entails. Students reacted positively to the interdisciplinary approach and overwhelmingly agreed to: a) that the interdisciplinary approach has helped them realize that there are numerous ways of looking at the same social phenomenon, b) that the interdisciplinary approach has helped their ability to think critically about social and linguistic issues, and c) that the interdisciplinary approach has helped them identify more effective solutions to the problem they have studied or project they have worked on (among other statements). Nevertheless, answers to open-ended questions indicated that not all students understood what an interdisciplinary approach is. Here are a few examples:

- Question: What disciplines did you incorporate?
- Answers: “The use of scholarly search engines” (various students), “my personal experiences”, “I questioned people who speak the dialect”, etc.

- Question: What did you appreciate or hate the most about working on an interdisciplinary research paper?
- Answers about finding or not finding information, sources, etc.

Lessons Learned and Best Practices:

- Interdisciplinarity as a concept needs to be explained to students multiple times throughout the quarter/project
- The instructor needs to provide students with more tools/sources from other disciplines
- The instructor needs to incorporate interdisciplinarity as a process rather than as a product-driven add-on to a course

Best Practices

- 1. Teach interdisciplinary thinking** – interdisciplinary thinking is in meaningful ways different from multi-disciplinary thinking. One should spend a great deal of time teaching how to think interdisciplinary. One should not assume that students will easily understand and appreciate the scope and the depth of interdisciplinary thinking. Spend a significant amount of class time on teaching/explaining the thinking process/technique.
- 2. Provide clear instructions/examples of what constitutes/demonstrates appropriate interdisciplinary work** – in the beginning students will most likely struggle with what interdisciplinary learning is. Typically, it helps if they are provided with examples of interdisciplinary knowledge creation. It is critical that these examples are deconstructed and the instructor explains why they demonstrate interdisciplinary thinking/learning/knowledge creation.
- 3. Emphasize group/action oriented assignments** – by and large, interdisciplinary teaching and learning become more accessible through group/action oriented assignments such as case studies, debates or role playing.
- 4. Promote “deconstruction” skills** – nurture students’ ability to deconstruct social images and narratives. The ability to “deconstruct” lies at the core of interdisciplinary learning. It is fundamental that students realize that every discipline is guided by certain narratives about what represents the “truth.” An excellent reading for this purpose could be Thomas Kuhn’s 1962 “The Structure of Scientific Revolutions.”
- 5. Challenges discipline imposed blinders** – provide students with the opportunity and roadmap for challenging the blinders imposed by their own discipline and field. Cultivate the ability to critically analyze the effects of these assumptions on thinking and knowledge creation within a given discipline and field. “The assumptions of my discipline” – would be a wonderful essay that students could write for this purpose.
- 6. Motivate students to take ownership of their own learning** – interdisciplinary learning is by its nature located at the individual level. It cannot be externally imposed or “faked.” Students are more likely to develop interdisciplinary habits of mind if they become active participants/designers of their own learning.
- 7. Embrace own interdisciplinary limits** – as an instructor one might find oneself outside one’s comfort zones when dealing with other disciplines. It is critical that this ambiguity and challenge are embraced. Interdisciplinarity does not equate with in-depth multidisciplinary knowledge. This is a learning experience for the instructor as much as it is for the students.
- 8. Promote the development of reflection skills** – interdisciplinarity relies heavily on students’ self-awareness and ability to critically reflect about epistemology. Reflection and reflection-based assignments have been shown to be quite effective for purposes of cultivating self-awareness.
- 9. Do not expect instant results** – interdisciplinary learning is time intensive. Students are unlikely to show an authentic appreciation of interdisciplinarity in the first few weeks. In fact, genuine learning might not take place until the end of the course. If possible develop interdisciplinary learning over the span of several courses.
- 10. Remain realistic/pragmatic** – while extremely impactful interdisciplinary thinking is a tremendously difficult skill to nurture. It demands a lot of effort and dedication on the part of the instructor. Furthermore, interdisciplinary learning is by no means a “silver bullet.” It is neither easy to implement nor will it magically generate extraordinary results.

Best practices group

Alexandru:

- (1) **Provide student guidance at the initial phase of the interdisciplinary project** - Most students have difficulty understanding the interdisciplinary focus of their project, for this reason, the faculty member's guidance will not only steer them in the right direction but it will also promote interdisciplinary learning.
- (2) **Design assignments that will serve as "spot checks" to insure that students are focusing on interdisciplinary topics**- "Spot check" assignments can give the faculty member a better sense of the interdisciplinary review process. Do not assume that students will get it on the first explanation of how to think interdisciplinary.
- (3) **Consider dividing the interdisciplinary project into 2-3 phases**- Students may find it easier to understand the interdisciplinary process if the project is divided into phases. Accomplishing the first phase may motivate them into thinking interdisciplinary.

Tom:

It is incumbent upon the design of the project for the (1.) instructor to factor in the time needed to provide proper, preliminary instruction on how the student(s) should prepare for each respective component of the project in relationship to the distinct academic field of endeavor. For these service learning internships, the students (2.) will be required to maintain a journal or log of their activities, which records the days/times/activities and academic fields that are utilized in the process. Additionally, (3.) the students will be required to prepare a reflective essay that not only chronicles their activities, but also requires the students to analyze their level of interaction with each respective field of endeavor. This analysis will also include the student to present and analyze distinct components of their activities in order to produce a more equitable overall analysis of the level of interdisciplinary activity. Additionally, (4.) the students will be required to present their own introspective analysis of how much and how exactly they believe that they completed their projects in relationship to interdisciplinary activities. By going the route of both forms of analysis, quantifying and qualifying their projects, both the professor and the students will have a reasonable understanding of the overall outcomes. This will additionally serve the student in their respective developments as museum, anthropology and public history professionals in being able to recognize and understand the significance of bringing in distinct ideas from more than one school of thought to apply to their respective projects and management in the future.

Antonieta:

- Do not assume that students are acquiring understanding of interdisciplinarity by covering more course material.
- Provide clear explanations on the differences between multidisciplinary and interdisciplinary.
- Design assignments that will serve as "spot checks" to insure that students are focusing on interdisciplinary topics.
- The three-phase method applied in this course appeared to have strengthened each student's language skills and acquired some understanding in the areas of Accounting, Commerce, Finance and Marketing.

Undergraduate Programs (Majors; BA, BS)	Department	Title	Contact Name	Email	Phone (909) 537-XXXX
"STEM" PASS GO Program (Sci, Tech., Engin., Math)(Transferring SBVC to CSUSB)	Natural Science	Service Learning Coordinator	<u>Lucia Macias</u>	lmacias@csusb.edu	Extn. 73680
LSAMP (Louis Stokes Alliance for Minority Participation)	Mathematics	Professor	<u>Belizario Ventura</u>	bventura@csusb.edu	Extn. 75406
Plan I: Visual Studies (Art, Plan 1)	Art	Assistant Professor	<u>Annie Buckley</u>	abuckley@csusb.edu	Extn. 75813
Bioinformatics (1/3 biology,1/3 biochemistry, 1/3 comp sci/mathematics)	Computer Science & Engineering	Professor	<u>Arturo Concepcion</u>	concep@csusb.edu	Extn. 75330
Computer engineering (physics and comp sci/engineering)	Chemistry & Biochemistry	Professor	Monica Latimer	kvoigt@csusb.edu	Extn. 75391
Social Sciences (BA program)	History	Associate Professor	<u>Thomas Long</u>	tlong@csusb.edu	Extn. 73791
Environmental Studies	Geography & Environmental Studies	Administrative S. Coordinator	<u>B.Goforth</u>	bgoforth@csusb.edu	Extn. 75519
Environmental Geology	Geological Sciences	Administrative S. Coordinator	<u>Christina Palmer</u>	cpalmer@csusb.edu	Extn. 75336
Health Science	Health Science and Human Ecology	Admin Support Coord	<u>Deanna Rinebolt</u>	drinebol@csusb.edu	Extn. 75339
Environmental Health	Health Science & Human Ecology	Env Hlth Prog Coord/Professor	<u>Lal Mian</u>	lmian@csusb.edu	Extn. 77409

Undergraduate Programs (Minors)	Department	Title	Contact Name	Email	Phone (909) 537-XXXX
Latin American Studies	World Lang. & Lit.	Professor	Carmen Jany	cjany@csusb.edu	Extn. 77386
Asian Studies	Center for Inter. Studies & Prgm	Faculty Director	<u>Rueyling Chuang</u>	rchuang@csusb.edu	Extn. 77537
Islamic and Middle Eastern Studies	Center for Islamic & Middle Eastern Studies	Director of CIMES	<u>Kevin Grisham</u>	kgrisham@csusb.edu	Extn. 73414
Gender and Sexuality Studies	Gender & Sexuality Studies	Director	<u>Tod Jennings</u>	tjennin@csusb.edu	Extn. 75606
Ethnic Studies; Chicano/a Studies	Sociology	Ethnic Studies Minor Director	<u>Elsa Valdez</u>	evaldez@csusb.edu	Extn. 75512
Philosophy, Policy, and Economics	Economics	Chair of Economics/ Prof.	<u>Mayo Toruño</u>	mtoruno@csusb.edu.	Extn. 75517
American Studies	English	Professor	<u>David Carlson</u>	dajcarls@csusb.edu	Extn. 77388

Graduate Programs	Department	Title	Contact Name	Email	Phone (909) 537-XXXX
Master of Arts in Interdisciplinary Studies	Graduate Studies and Student Research	Dean of Graduate Studies	<u>Jeff Thompson</u>	jthomps@csusb.edu	Extn. 75058
Master in Social Sciences	College of Social and Behavioral Sciences	Coordinator	<u>Timothy Pytell</u>	tpytell@csusb.edu	Extn. 73789
MBA Criminal Justice/Cyber Security	M.B.A. Program Office	MBA Program Coordinator	<u>Deborah Grijalva</u>	grijalva@csusb.edu	Extn. 73392
M.S. Earth & Environmental Sciences (MSEES)	Chemistry & Biochemistry	Chair, Professor	<u>Joan E. Fryxell</u>	jfryxell@csusb.edu	Extn. 77218
Integrated Marketing Communication	Comm & Marketing	Professor	<u>Heather Hudley</u>	hhudley@csusb.edu	Extn. 77377
MA in Public Administration (Watershed Management Internship Program)	Water Resource Institute	Program Manager	<u>Larry Ibrahim</u>	librah@csusb.edu	Extn. 73687
Nursing	Nursing	Program Director/Chief Nursing Adm	<u>Asma A. Taha</u>	ataha@csusb.edu	Extn. 73394

Certificates	Department	Title	Contact Name	Email	Phone (909) 537-XXXX
Certificates in Anthropology	Anthropology	Chair, Professor	<u>Pete Robertshaw</u>	proberts@csusb.edu	Extn. 75551
Museum Studies	History	Associate Professor	<u>Thomas Long</u>	tlong@csusb.edu	Extn. 73791
Health equity/health disparities	English	Assistant Professor	<u>Caroline Vickers</u>	cvickers@csusb.edu	Extn. 75684
Gerontology	Sociology	Professor	<u>Dale Lund</u>	dlund@csusb.edu	Extn. 75580
Geographic Information Systems (GIS)	Geography & Environmental Studies	Assistant Professor	<u>Rajrani Kalra</u>	rkalra@csusb.edu	Extn. 73777
Sustainable Transportation and Logistics	Transportation Center, Leonard	Interim Director	<u>Rusty Thornton</u>	gthornto@csusb.edu	Extn. 75036
Geographic Information Systems (GIS)	Geography & Environmental Studies	Assistant Professor	<u>Bo Xu</u>	bxu@csusb.edu	Extn. 75554

Other (not to be surveyed)	Department	Title	Contact Name	Email	Phone (909) 537-XXXX
International Programs	Center for International Studies & Programs	Director	Paul Amaya	pamaya@csusb.edu	Extn. 75193
BA, MA, and Certificate programs in Sustainability (Program is on HOLD)	Facilities Services	Associate Director	Kevin Doyle	kdoyle@csusb.edu	Extn. 77493
Arabic exploring an Arabic BA with Teaching Credential, Arabic for the Professions	World Languages & Literatures	Associate Professor	Dany Doueiri	ddoueiri@csusb.edu	Extn. 75814

——— Entrevistados

——— Personas que no fueron contactadas para las entrevistas

——— Personas que estaban fuera de la ciudad, ya no pertenecen a la escuela o se encontraban en sábado y por lo tanto no entrevistadas.

——— Personas que mandaron el documento a travez de email.

Todas las personas con subrayadas fueron contactadas por email.

Survey results

N=17

Quantitative part:

	SA	A	D	SD
a) Involves employing two or more disciplines. The disciplines do not necessarily intersect/interact.	8	4	4	1
b) Draws upon more than one discipline and challenges conventional disciplinary approaches.	8	8	1	
c) Integrates two or more disciplines which interact exploring new areas of knowledge.	12	5		

Qualitative part.

2) What does 'interdisciplinary' mean to you? How would you define it?

Most respondents (10 out of 17) answered that interdisciplinary means a variety of disciplines.

Two responded that it's implied in the synthetic nature of the discipline (Geography). Other

responses mentioned that it's the overlap between disciplines (2) or needed for problem-solving or that it builds on other disciplines.

3) Do you think your program is 'interdisciplinary'?

Every respondent said yes.

4) How do the disciplines in your program interact (e.g. in student projects, interdisc. Courses, etc)?

Most respondents said it was the mix of classes (9). Others said it was assignments that made connections between different disciplines (6). One respondent said it was synthesis of theory and method application while another that it's inherent in the structure of the program.

5) What would you like your students to achieve once they complete the program?

This was the question that brought the largest variety of responses. Four respondents wanted students to be ready for the job market. Two to be ready for grad school, be informed citizens and acquire specific knowledge. Single respondents wanted students to think in more complex fashion, be culturally competent, more sophisticated thinkers, master their discipline, apply different perspectives, graduate, contribute to the community.

6) Do you think your program is achieving that goal?

All but two respondents said yes (15). The others said it was too early to tell.

7a) Does your program include a practical component or a service-learning component?

Fifteen said yes.

7b) Do you find this to be effective as a teaching method.

Twelve said yes, and three said depends on internship.

8) What kind of support are you receiving from your College/Department for your program & what kind of support would you like to have?

Thirteen respondents said their programs were underfunded. They listed a variety of needs from more tenure-track faculty lines (3), need for more release time for coordinators (2), lab facilities, more College support, scholarships, student assistantships. Three respondents were satisfied with the level of support received from Colleges.

Survey results

N=18

Quantitative part:

	SA	A	D	SD
a) Involves employing two or more disciplines. The disciplines do not necessarily intersect/interact.	11111111	1111	1111	1
b) Draws upon more than one discipline and challenges conventional disciplinary approaches.	11111111	11111111	1	
c) Integrates two or more disciplines which interact exploring new areas of knowledge.	111111111111	11111		

Qualitative part.

2) What does 'interdisciplinary' mean to you? How would you define it?

-strong foundation + build on from other disc

-synthetic nature of discipline (geog)11

-variety of disciplines (1111111111)

- overlap area between disciplines (prefers multidisciplinary)11
- problem solving from different disciplines

3) Do you think your program is 'interdisciplinary'?

Yes, Y, Y, Y, y, y, yyyyyyyyyyy

4) How do the disciplines in your program interact (e.g. in student projects, interdisc. Courses, etc)?

- Mix of classes1111111111
- synthesis of theory and method application
- assignments make connections between different classes (111111
- structure of program

5) What would you like your students to achieve once they complete the program?

- complexity, big picture
- be informed citizens11
- culturally competent (able to work in any community)
- more sophisticated
- master discipline from their perspective
- specific knowledge (?)11
- contribute to community
- professionalism1111 (find a job)
- apply different perspectives
- grad school11
- graduate

6) Do you think your program is achieving that goal?

n/a, Y, Y, y, y, y, yyyyy, na, yyyyy

7a) Does your program include a practical component or a service-learning component?

No, Y, Y (internships), not required, encouraged, y, yyyyyyyyyyy

7b) Do you find this to be effective as a teaching method.

-na, Y, Yes (good practical experience), not necessarily, y, y, yyyyy, na, yy, depends on internship, yy

8) What kind of support are you receiving from your College/Department for your program & what kind of support would you like to have?

-moral support

-underfunded (tenure lines vacant)111

-release time + huge college support

-underfunded (need to expand lab facilities)

-got own funding, more support from College needed

-undersupported (not enough release time, clerical support, funding)

-supported (curriculum, research assistantships)

-more funding111

-scholarships

-well supported (STEM , math, integrated marketing communication)

-more funding (has to chase grants)

