I. Introduction and Background

The original charge of the UNIV Task Force was to consider how to decentralize UNIV courses and run through individual colleges. The task force requested permission from the Academic Senate Chair to explore alternative approaches to decentralization, and to widen our inquiry to explore the broader implementation of interdisciplinary education at Cal Poly. Meetings with the senate chair and provost in April 2012 provided additional encouragement to examine in more depth the details of a broader proposal and to discuss with other campus constituencies engaged with interdisciplinary education.

This investigation began with an ad hoc group consisting of UNIV faculty and Environmental Studies Minor advisors from the different colleges meeting in Spring 2011 to address the potential risk of UNIV 350, a capstone course for the Environmental Studies Minor, not being offered for graduating seniors in the 2011-12 academic year. A task force to examine broader issues related to UNIV courses was formalized by the senate in Fall 2011. Meetings began in Winter 2012, and continued through the end of this academic year. Spring quarter meetings took place from March 28th, 2012 through May 30th, 2012 (except 4/4, 4/18, and 4/25).

UTF members participating during spring quarter were: Margot McDonald (Architecture/CAED), task force chair with Mary Pederson (Associate Vice-Provost, Institutional Planning and Programs and former Associate Dean in CAFES), David Conn (Associate Vice President, Institutional Review/CAED), Randy Knight (Physics/CSM), David Braun (Electrical Engineering/CENG), and Bud Evans (Political Science/CLA).

The report is a summary of the task force findings and recommendations for next steps.

Explanation of terms: The term “integrative” is used in the context of this report to represent for an inclusive approach to the various forms where more than one discipline is brought together with another for instruction and inquiry; this includes interdisciplinary, transdisciplinary, cross-disciplinary, and multi-disciplinary. The term “experience” is used in this report to represent a variety of educational settings from direct classroom instruction to field work to project-based learning to service learning.

II. Summary of Spring Stakeholder Meetings

During the spring quarter, the task force focused on completing the work plan outlined in the winter quarter report. This work plan was centered on providing practical recommendations to the academic senate and provost to insure UNIV course offerings continue in the near term, and further refinement of a vision for an implementable, comprehensive proposal to facilitate greater opportunities for interdisciplinary experiences at Cal Poly.

To explore these issues and gain administrative, instructional, and student perspectives, the UTF conducted a series of stakeholder meetings. We focused on meeting with several non-degree granting programs (Honors, SustainSLO) that are engaged in interdisciplinary education. Along with the UTF, the following individuals participated in these discussions:

- Kevin Taylor (KINE/STRIDE);
- Sema Alptekin (IME/HRS) and Kate Murphy (HIST/HNRS);
- Linda Vanasupa (MATE/Sustain SLO) and Liz Schlemer (CE-EE/Sustain SLO);
- Rachel Fern Flores and Steven Rein (Academic Senate) and Sema Alptekin (IME), Kate Murphy (HIST), and Kenneth Brown (PHIL), (Honors Program); and,
Alex Vincent (5th year senior ARCH student/Sustain SLO teaching assistant).

A summary of observations from the stakeholders and task force is provided below covering administrative, instructional, and student perspectives based on current interdisciplinary teaching and undergraduate research experiences at Cal Poly.

**Administrative perspectives**

In order to insure successful implementation of the integrative academic learning experience based on interdisciplinarity, a champion with administrative capabilities is needed to provide oversight, direction, and maintenance of academic integrity. Functionally and fundamentally this includes providing oversight such that courses taught by faculty from multiple colleges, or subscribed to by students from a variety of majors, are staffed appropriately, scheduled in suitable instructional spaces and time blocks, and properly allocated funds as well as assignment of teaching loads. In addition, the champion serves an important role as a leader in assessment, development of new course proposals and pioneering interdisciplinary initiatives, faculty development, student success, community outreach, and maintenance of academic standards related to integrative education. The Honors Program is exemplary in this regard with its director and staff although the faculty director position receives very few weighted teaching units, and the student population served is exceptionally small.

**Instructional perspectives**

*Timing and frequency of interdisciplinary experiences.* Having a common interdisciplinary experience at the foundational level (especially for freshman) followed by opportunities for reinforcement during the middle years, potentially though GE courses, and culminating with an interdisciplinary capstone experience is a recommended model to balance the student need for disciplinary depth and interdisciplinary experience as an integral part of their undergraduate education.

*Faculty development related to interdisciplinary teaching.* Instructional faculty report that while there is awareness of teaching methods that give students the necessary leadership and teaming skills, there is a significant need to help faculty become more effective leadership and teaming in working with each other. Faculty do not always model the behavior they demand of their students when it comes to planning or delivery of the interdisciplinary course and often fall back on more time efficient, less collaborative methods such as "divide and conquer." This is an especially great challenge in courses involving faculty from disciplines with different epistemological roots (Vanasupa et al, 2011).

In addition, there is inadequate attention given by faculty to the application of existing research in the instructional setting that could be tried to improve methods related to faculty dynamics and student learning in the interdisciplinary setting.

*Institutional commitment.* RPT (retention, promotion, and tenure) criteria tend not to address individual versus team accomplishments, and needs revision to reflect this new model of scholarship.

Moreover, most faculty are not compensated for the added work load related to interdisciplinary efforts. Some receive grant funding or release time, but others do not and often participate in these research and teaching activities as a voluntary overload. This leads to faculty burnout if continued on a long-term basis, and creates potential inequities in compensation. One way to permit team teaching with adequate faculty compensation is to establish faculty/student ratios, or cohorts, such as seminar modes (1:24 or 1:36) where a workshop format is utilized.

*Space.* Flexible teaching spaces to support team or project-based learning are lacking at Cal Poly. There are a few exemplary spaces on our campus presently including Engineering III and
the Bonderson Building, but this new mode of instructional delivery requires a different physical arrangement of space and demand will rapidly exceed supply if it has not already.

Student perspective

To gain some insight into the student perspective, we included feedback from a meeting with a graduating senior who focused his studies on an integrative curriculum framework for his thesis project, and who served for two quarters last year as a teaching assistant for an interdisciplinary experience. The conversation and thesis document yielded valuable insights regarding what interdisciplinary education could be at Cal Poly. Two examples stood out in particular as described below.

One of the creative and forward-looking student ideas is an implementing of a “Learn by Living” program at Cal Poly. Similar programs exist at other universities under the name, Experiential Learning (or Living) Programs or ELP’s where principles of sustainable living are shared in a reflective and applied manner – their own living and learning environment while part of the campus community.

Another concept originating from the student perspective is a peer-to-peer teaching model where students, with faculty guidance, develop courses and serve as instructional leaders for their peers. Kevin Taylor has applied a similar concept though an innovative peer leadership program in the Kinesiology Department that brings undergraduates up through the ranks to guide peers on interdisciplinary senior projects between CSM and CENG.

This is a capsule of firsthand administrative, instructional, and student perspectives on interdisciplinary experiences at Cal Poly and some of the obstacles and opportunities. The task force recommends that a more complete university-wide survey be conducted for a more comprehensive perspective.

III. A Collaborative “Big Ideas” Proposal and supporting activities

A Hub for Integrative Education

In addition to fulfilling the basic charge of our task force, the group wanted to consider a more expansive view for how the full range of interdisciplinary experiences (called “integrative”) could be implemented at Cal Poly. The UNIV courses serve as a microcosm in many ways for the attributes of the Cal Poly strategic plan which is not only interdisciplinary or integrative but also developing students as whole system thinkers, working on real world problems, considering a sustainability perspective, and building collaborations between students and faculty in project-based settings.

While a longer white paper on this topic is being developed by the task force, outlined below is a subset of specific recommendations that could begin immediately to gain traction on this timely and important topic.

Action Item: Develop University Studies as an interdisciplinary hub and make a strategic priority for the Cal Poly Capital Campaign

Time line: AY 2012-13

Financial Impact: Staffing: 0.5-1.0 FTEF director, full-time administrative staff position, and student interns.

Faculty release time: XX WTU’s (based on historical precedent)

Make an official home for the promotion and cultivation of interdisciplinary activities across the university including courses, senior projects, service learning, undergraduate research, and faculty development. As such, University Studies would have primary oversight for coordination of
existing courses for UNIV courses, and would become the official nexus or “hub” for supporting faculty, staff, student, and community-based collaborations.

A critical performance criterion is that the hub is not housed in any single college; rather that it serves as a bridge between colleges most of which has different epistemological roots. A description of the Center for Integrative Education can be found as Appendix XX.

A first step would be to identify a working group including representatives from faculty, staff, administration (Advancement, Academic Affairs, Library), community members and alumni to translate the “big ideas” proposal into a fundable case statement with a viable operational structure that describes the organizational chart, mission, vision, goals and objectives for the hub in addition to a physical facility and prospective donors. Participants in this working group

Low to No-Cost Immediate Action Items

In addition to the visionary proposal, more immediate action items are outlined in this section. The time line for implementation is beginning in Fall 2012. The cost of these items is variable as noted below.

Supporting idea #1: Host the Interdisciplinary Commons and Café
Cost: Minimal (refreshments, est. $500/meeting)

Dedicate 1-2 hours every month to allow faculty interested in interdisciplinary teaching and undergraduate research and students with similar interests to meet one another in an informal and informational social setting in the Library. These sessions would include a structured opportunity to enhance meeting and exchange, as well as a mechanism to nurture relationships in an ongoing manner through a listserv or other modes of communication.

Supporting idea #2: Create a CTL seminar on UNIV and interdisciplinary teaching
Cost: Faculty time (tbd)

Conduct a session or series at the Library that provides background on goals and objectives for UNIV studies and an overview of UNIV courses taught over the past several years. The session will serve as a discussion platform for the future of UNIV studies and interdisciplinary teaching and learning at Cal Poly.

Supporting idea #3: Cal Poly Connect: A dynamic repository for project-based, industry-related, and service learning connections
Cost: Faculty and staff development time (tbd); software purchase or modification of existing.

Students, faculty, staff, and the larger community need better infrastructure to connect on project-based land service learning opportunities. The repository would enable connections between those looking for learning partnerships to connect, and would provide a searchable archive on past projects conducted with greater Cal Poly community of learners. This project would be conducted in collaboration with the Library and other campus constituencies engaged in related activities.

Supporting idea #4: Forum on the interdisciplinary/integrative academic experience
Cost: Minimal (refreshments, est. $500/meeting)

In the mid-1990’s Provost Paul Zingg fostered an intellectual community around the emerging topic of campus sustainability and environmental responsibility at Cal Poly. He did so by hosting a monthly faculty seminar with readings on sustainability at the Alumni House on campus. Faculty from across the university met to discuss and explore implementation strategies for our campus. Several projects resulted from this seminar that received development funding: the Global Environments course, the book, Cal Poly Land, and the Sustainability Book Club. A similar “ideas
forum" could be conducted by an intellectual leader on campus to foster innovation and implementation of interdisciplinary education.

V. University Studies and UNIV course offerings effective AY 2012-13 through 2014-15

The UTF strongly recommends that the academic leadership forge a new type of structure that creates a hub for integrative education that transcends the boundaries of individual colleges. However, there is an immediate need to insure that successful UNIV courses developed over the past 8 years be able to continue. The UTF recommends promoting the continuation of these courses through several avenues.

1. We request funding to continue starting in 2012-13 for UNIV courses to support faculty teaching loads at the same level as the most recent three year average (~40 WTU) for the next three years, or until a new structure is set in place, whichever occurs earlier. In addition, administrative support is requested to insure timely release of funds and scheduling coordination. Source of funds to be determined.

2. Alternatively or in addition, we ask that the Office of Academic Affairs encourage the colleges to offer UNIV courses within their existing budgets to fulfill student need for GE area F or to complete faculty teaching assignments. This could also be incentivized through the Student Success Fee relative to progress towards degree.

3. Third, is to ask the General Education Program to take over management of UNIV courses until a more permanent solution for course management can be found and to insure that a minimum threshold of UNIV courses be offered.

VI. Next steps for the UNIV Task Force

The UTF discussed during spring quarter but did not complete two surveys related to UNIV courses. One group to be surveyed consists of Deans, Associate Deans, and Department Heads/Chairs; the other group is UNIV faculty. The purpose of the survey is to gain their perspective on obstacles and opportunities for both UNIV courses and the hub. This could be carried out by the UTF before closeout if requested by the senate chair or provost.

In addition, I think it is safe to say that any member of the current task force would be a willing participant in the working group for the hub development or to participate in some or all of the supporting activities proposed during AY2012-13.

VII. Conclusion and Closing Recommendation

The UNIV Task Force has studied issues related to the decentralization of these courses to the colleges. In this document, we have made recommendations for the continuation of UNIV courses in the short term, and presented a longer term vision that recognizes the need for an organizational structure, at a level equal to or above the colleges, to provide interdisciplinary education the institutional support necessary for its faculty, students, and staff not only to survive but to thrive.

We believe that the development of a new hub for integrative education requires setting this initiative as a strategic priority for Cal Poly at the highest levels of university academic and advancement planning. The UNIV Task Force has developed formative elements to seed the "big idea" however in or to accomplish further development of an implementation plan and case statement (for physical facilities, endowed chairs, renovation of existing space and new furnishings, instructional technology, and more) institutional commitment is needed. Specifically, a directive from the top leadership to pursue this direction, with the formation of a targeted
stakeholder group and a refined purpose to address funding, administration, operation, would set the wheels into motion.

References
To be provided

(Supporting documentation: white paper with appendices to follow. Appendix inline below.)

Appendices
I. Center for Integrative Education Proposal
II. Strategic Planning Big Idea (from Kevin Taylor, KINE)
III. University Studies (UNIV) Courses: Criteria
IV. 2011-13 Cal Poly Catalog (excerpt): UNIV—University Studies
V. UNIV Budget Summary
VI. Proposal for UNIV Classes – April 2011
VII. Case Studies: Programmatic and Facilities
VIII. Exemplary Furnishings: innovative teaching and learning spaces
IX. Graphic from senior thesis entitled, Permaculture Polytechnic: An initiative for transdisciplinary holistic design (Alex Vincent, B. Arch., Cal Poly, San Luis Obispo, 2012)
X. Miscellaneous related readings