

## UNIVERSITY COMMITTEE ON EDUCATIONAL POLICY

March 7, 2005 Meeting Minutes

**Attending:** Joseph Kiskis, Chair (UCD)

Randolph Bergstrom (UCSB), Richard Weiss (UCLA), Richard Hughey (UCSC), David Bunch (UCD), J. Keith Gilliss (UCB), Anne Kelley (UCM), Charles Perrin (UCSD), Henry Sanchez (UCSF), Harry Green (UCR), Eligio Martinez, Student Rep. (UCLA), Rozana Carducci, Student Rep. (UCLA), Julius Zelmanowitz (Vice Provost, Academic Initiatives), Julie Gordon (Director, Intercampus Program Coordination), Lynda Goff (Exec. Faculty Associate), Michael LaBriola (Senate Analyst)

### **I. Chair's Announcements – *Joe Kiskis***

In February, UCEP sent a memo to Academic Council recommending that Council support a Regents' budget line item pertaining to the student-faculty ratio. However, Council members were concerned that such a statement would appear to contradict a previous Council declaration that graduate education and faculty salaries should be the highest budget priorities. Chair Kiskis was asked to draft a new version of that letter. UCEP will also be sending Council a recommended course of action for gathering data on students in academic difficulty.

Council endorsed the proposal to streamline the UC major preparation-articulation process, and is drafting an amendment to Senate Regulation 478, which will allow for the implementation of the SciGETC program. The discussion among Council members about the resolution on restrictions of funding sources may be moving toward a compromise.

ICAS discussed a proposal to improve coordination between transfer articulation groups, a legislative proposal concerning CPEC, and a multi-segment study regarding the improvement of WASC accreditation review procedures.

### **II. Consent Calendar**

**Action:** The committee approved the minutes of February 7, 2005.

**Action:** The committee endorsed the Electronic Communications Policy Updates without comment.

### **III. Overview of the California Science and Math Initiative – *with Lynda Goff***

Executive Faculty Associate Lynda Goff reported that a number of factors—the aging of the scientific workforce; an increasing numbers of California jobs requiring a background in science and technology; and fewer students choosing to study science or math or coming to the state as foreign students or H1B technology workers—have converged to create a “perfect storm,” threatening California's continued economic competitiveness. In response to this crisis, a new State/UC partnership initiative seeks to revitalize science and math teaching in California high schools, which in turn, is believed will help the state produce more of its own highly skilled workers and scholars.

At present, 96% of students who enter high school in California do not go on to receive a baccalaureate degree in a Science/Technology/Engineering/Mathematics (STEM) field, and 50% of students who enter UC with the intention of completing a STEM degree, do not. California is at or near the bottom of state comparative rankings of K-12 science, and near the bottom in math performance, and up to 35% of high school science and math teachers have either no teaching

credentials or are teaching outside of their fields, which places many schools out of compliance with Federal regulations and standards. The number of science and math degrees completed at UC is flat in comparison to the needs of both private industry and high school classrooms. If UC is to maintain its role as a major supplier of skilled STEM workers and teachers to California schools and industry, steps much be taken to improve college preparedness, and to encourage interest in the sciences and in science and math teaching.

“One Thousand Teachers, One Million Minds,” is a new state campaign, corollary to the May 2004 Compact between UC and the Governor. UC will, by the year 2010, provide 1000 or more highly qualified STEM teachers annually to meet the state’s educational and workforce needs. To meet this goal, UC is developing the California Teach (CaT) program. Beginning in 2006, freshmen entering UC who have indicated an interest in pursuing a STEM major will be offered the opportunity to participate in a dual track degree program and earn a single subject teaching credential in addition to their major. CaT students will also participate in a fifth-year paid internship in a high school, as well as a summer Teaching Institute focusing on pedagogical approaches to STEM teaching. CaT integrates elements of the University of Texas’ UTeach program, which is attracting students with higher than average test scores and GPAs and retaining them at twice the rate of other UT programs. The Texas program is also attracting a higher than average number of minority students.

It is hoped that CaT will attract highly skilled UC STEM majors into the teaching profession, which in turn, will have an effect of encouraging more high school students to think about a career in the Sciences or teaching as possible professions. (The CaT model is also seen to have the potential to expand beyond STEM into other disciplines in need of qualified teachers.) Much of the funding for the Initiative will come from private industry, with the possibility of named scholars and the establishment of an endowment to fund it.

EFA Goff has begun a process of discussion with campus administrative and faculty leaders, and she will continue to work with campuses and the Senate to build a consensus around program development. Dr. Goff wants to involve faculty members and the Senate in ongoing discussions about the initiative—in particular, she sees a specific role for faculty to play in summer institute curriculum development. She also said systemwide and local Senate bodies would need to be involved in mechanisms for course approval, implementation and quality control, and she is interested in exploring strategies for reducing bureaucratic barriers to curricular approval.

UCEP members were generally supportive of the goals of the Initiative. A concern was raised about making the Summer Institutes work efficiently and effectively in the context of the summer session FTE allocation system. UCEP members are encouraged to contact Dr. Goff with comments or questions, including their ideas about what incentives would be effecting in encouraging departmental and faculty involvement.

#### **IV. Report from UCOP Consultants – *Julius Zelmanowitz and Julie Gordon***

Julie Gordon reported that the Department of Academic Affairs is undergoing an extensive reorganization in an effort to improve internal and external communication, coordination, service and efficiency. Julius Zelmanowitz will serve on an interim basis as deputy senior vice provost, and will lead Academic Programs, which is one of four new umbrella units.

Julius Zelmanowitz reported that legislation has been proposed that would give California State University the authority to independently award professional/clinical doctoral degrees. The legislation is a concern to UC and has been a distraction to the University's long range planning efforts around graduate education and enrollment. UC is convening a Task Force to look at a comprehensive array of graduate education issues and options.

## **V. Proposed Earth Science Core Requirement Option**

Earth and Space Science (ESS) has been proposed as a fourth core laboratory science course option in UC's "d" and "g" admissions requirements. Before the meeting, Chair Kiskis received a number of letters in support of the proposal from both individual faculty and Science education organizations, arguing for the inclusion of ESS based on national standards. The final decision on this issue is firmly within the charge of BOARS, but UCEP members believed it would be appropriate for the committee to send an informed opinion to BOARS on the matter. UCEP considers it to have educational policy implications, as there is a stake for all faculty in having students entering the University of California prepared to engage in the science curriculum.

First, members remarked that the term "laboratory science" in the admissions criteria d was unclear. It suggests a subset of fields, but also seems to suggest a concern that students have hands-on experimental experience in a high school course with a laboratory component. UCEP will recommend that a less archaic label be considered. In addition, the committee preferred the categorizations "physical science," "life science," and "earth and space science" to physics and chemistry, biology, and geology.

There was little support in UCEP for adding ESS or any other specific discipline to the core laboratory science requirement list as a fourth option if the requirement were kept at two years. Members agreed that California students should be encouraged to know the concepts in the ESS curriculum, but most were not convinced that ESS was a fundamental intellectual building block for science literacy on an equal footing with chemistry and physics.

There was strong majority support to increase the science requirement from two to three years. While it is true that 90% of UC applicants already exceed the requirement by at least one year, members noted that a move to three years would send a clear message about the importance of science education. However, there was also significant opposition to this option, based on possible negative consequences for access and opportunity, especially for students in low resource or low API schools. All members felt these possible outcomes should be investigated.

Members discussed their preferences for the allocation of subject options *if* the requirement were increased to three years. The majority sentiment was that if the requirement were increased to 3 years, the distribution of courses should require students to gain fundamental knowledge in at least one of the quantitative physical sciences (chemistry or physics), plus two options drawn from life science, physical science, earth and space science, and perhaps the engineering sciences, computer science, or environmental science. There was also support for refining that to include at least one physical science *and* one life science.

Members remarked that the wording of UC eligibility requirements should reflect and accommodate increasing levels of innovation in the schools in regards to academic calendars and integrated multidisciplinary courses—that is, the requirements need to move toward emphasizing knowledge attained in a particular subject rather than course years. Such integrative science

courses, including but not exclusive to ESS, should continue to be considered as sufficient to meet core discipline requirements, as long as they also include fundamental knowledge in biology, chemistry and physics.

**Action:** UCEP will send comments to BOARS.

## **VI. Systemwide Minor in Information Technology Fluency and Impact**

*– With Alfonso Cardenas (ITTP Chair) and David Messerschmitt (ITTP member)*

Chair Kiskis has been holding preliminary discussions by phone and email with members of the Information Technology and Telecommunications Policy Committee (ITTP), who are interested in instituting a systemwide Information Technology minor.

ITTP member David Messerschmitt reported that the proposed minor could be justified in terms of its expected low cost, relative to the resources normally required for a new educational initiative. The minor also has potential to be an “icebreaker” and model for the use of simultaneous enrollment through SR 544, helping to drive the establishment of a technology and administrative infrastructure for systemwide distance learning course delivery.

UCEP members endorsed the concept of the university minor, and agreed that curriculum coordination for a set of courses offered on multiple campuses would require faculty senate input at both the local and systemwide levels. Members agreed that a group of faculty at one or more divisions who have a particular interest and expertise in the topical area of the minor would develop the curriculum, using courses that had been or would be approved by the usual senate procedures of one campus. The proposal would be sent to UCEP, who would have a limited role in evaluating its suitability as a University minor. In doing this, UCEP may decide to constitute a subcommittee with the appropriate needed expertise, and may also consult with other committees such as UCPB.

Members agreed that if the UCEP review were favorable, the proposal would be sent to the Divisions with UCEP’s endorsement and a recommendation that the Divisions review it as a possible minor for their students. The UCEP review itself does not establish the minor, and each Division has the authority to either accept or reject it through the senate review structure.

If more than one Division accepts the minor, a faculty group would be constituted with responsibility for the ongoing management of the curriculum. This group should be broadly representative of interested faculty across the University and should operate openly within the Senate structure. At the moment, systemwide Senate regulations do not explicitly provide for such a faculty group. Thus, initial proposals will be handled on a case-by-case basis. For the proposal on IT Fluency and Impact, UCEP and ITTP have agreed that an ITTP subcommittee will play that role, and ITTP should have the autonomy to set up a subcommittee to define this minor. Periodically and no less often than every seven years, UCEP will review the University minor for its continuing suitability.

If the model of University minors proves to be useful and begins to generate a critical mass of proposals, it may be necessary to add a provision to the Senate Regulations for a University minor curriculum management committee. This new systemwide committee would be analogous to a “committee on courses” at the divisional level, which would “own” each systemwide minor and have the authority to add or disestablish courses

It was suggested that the ongoing curricular management and review function of systemwide minors should ideally operate through an existing systemwide senate committee like UCEP, and moreover, that the recent amendment to Bylaw 170 giving UCEP authority to approve existing courses as a systemwide course if a single campus has approved the course, could be further amended to include a set of courses—i.e. minors. Members did not think this additional charge would be viable, as it would likely distract from UCEP’s primary duties as a policy review committee.

Members agreed that rather than changing the bylaws now, the Senate should take a wait-and-see approach, observing if and how the model evolves, and if necessary, making appropriate changes to the governance structure if the number of proposals being submitted for senate review reaches a critical mass. In the future, a more formal approach, including a bylaw change, may be appropriate if the model becomes successful and is propagated to other disciplines.

As a separate matter, there will also need to be an administrative structure responsible for matters including course delivery and personnel. As in the case of a traditional academic administrative structure such as a department, that structure will likely include faculty involved with the curriculum management, but will function separately from the Senate organization. It was also noted that other cost issues exist that must be reckoned with to ensure success.

Finally, one member remarked that this could work as a model for the Science and Math Initiative teaching institute approval structure—a systemwide initiatives for summer sessions in which a systemwide minor is designed to give a teaching credential.

**Action:** UCEP will send comments to Council.

## **VII. Grade Point Bump for A+**

One member brought forward a proposal for a grade point bump advanced by high-achieving students who feel cheated by not receiving a grade point advantage for an A+. There were two arguments given for the change: first, that students should receive compensation and recognition for high achievement, and second, for consistency’s sake, because pluses and minuses for other grades push grade points up and down by .3. UCEP may revisit this in the future. Further discussion was deferred to a later meeting.

## **VIII. Updates on three UCEP Projects**

**Quantitative Reasoning Requirement.** Richard Hughey reported that a joint UCEP/UCOPE subcommittee is discussing a proposal to institute a UC-wide entry-level Quantitative Research Skills and Methods requirement, analogous to the Subject A writing requirement. The subcommittee has been soliciting and reviewing viewpoints both in support of and against the proposal. UCEP members agreed that student preparation in math across the system leaves a lot to be desired and they supported further work on the proposal—one argument being the related goals of the Science and Math Initiative.

**Academic Integrity.** Keith Gilles distributed information he was able to gather from divisional websites about how academic dishonesty is defined on each campus—including the academic dishonesty policy statement, if one exists; instructor prerogative for grading within those policies; whether a punitive notation for cheating is identified on transcripts; and whether a policy exists for the use of academic plagiarism software. Campus policies differ, and systemwide, individual faculty have different obligations and are granted varying degrees of

freedom in how they are allowed to respond to cheating. This UCEP subcommittee would like to encourage campuses to establish policies and procedures if they don't exist and make them more accessible and understandable if they do; and increase awareness among faculty and students about those policies. The subcommittee will develop a draft report and recommendation for UCEP to review in April.

**Action:** There are gaps in the data, and each UCEP member is asked to assist by and send the requested information, e.g. web links to information, to Keith Gilles.

**Program Review.** Richard Weiss reported that his subcommittee is developing a questionnaire that will allow members to report on and evaluate the essential components of the program review process on their campus, including who participates in and makes decisions about a review, and what happens when a review is completed. The subcommittee also wants to get a sense of the state of satisfaction with review procedures on each campus, and whether review policies and guidelines are easily accessible, through a web link, etc. The subcommittee is interested in hearing from campuses where program reviews are thought to be problematic. They believe there may be a need to share best practices if research reveals significant levels of unhappiness.

The meeting adjourned at 4:00 PM.

Minutes prepared by Michael LaBriola

Attest: Joe Kiskis

Distributions

1. Power point slides.
2. Possible Systemwide Entry-Level Mathematics or Quantitative Research Skills and Methods Entrance Requirement.
3. Emails from UCOPE/UCEP subcommittee