

**MINUTES**  
**Committee on Research**  
**November 5, 2013**

**Present:** Judith Habicht Mauche (chair), Pranav Anand, Sharon Daniel, Yat Li, Jason Nielsen, Paul Roth, Matt Wagers, Steve Whittaker, Matt Robinson (Committee Analyst)

**Absent with notice:** Fitnat Yildiz

**Committee Business**

The minutes from the October 22, 2013 meeting were approved with minor changes. Due to teaching conflicts with some members, COR agreed to move its spring quarter meetings up half an hour. The committee will meet from 2:30 pm to 4:30 pm during spring quarter only.

**Graduate Awards Proposal**

The committee constructed an outline of a proposal to create UCSC Outstanding Dissertation Awards. A sample deadline for the annual awards would be April 1, or the beginning of the spring quarter. Graduate students who have submitted and defended their dissertations in the 365 day period before April 1 are eligible. Each department will be able to nominate a maximum of one student for the divisional award. Nomination packets will include a completed application, an ecopy of the dissertation, a departmental letter of recommendation, and a short summary of the dissertation in non-technical language (authored by the graduate student). Each division will select a winner from all of the nominees. The winners (maximum of five annually) will be recognized at the graduation ceremony and their dissertations will be displayed on campus.

The committee will draft a proposal and share it with Graduate Council, the Vice Chancellor for Research (VCR), the Dean of Graduate Studies, and the divisional deans.

**Silicon Valley Academic Plan**

COR reviewed the Silicon Valley Academic Plan, an update of the version reviewed by the Senate in May 2012. The plan calls for UCSC faculty to be housed in Silicon Valley, and COR questioned where these faculty would conduct their research. Faculty members potentially conducting research in a corporate laboratory or privately-held space could be a serious concern. Also, if the majority of the new programs will offer only masters degrees, COR wondered how ladder rank faculty will have access to Ph.D. students with whom they can conduct research. The committee agreed that research with masters students is severely limited due to the amount of coursework required for this group.

Section 7.1.1 of the proposal indicates that Ph.D. students will be conducting research in corporations, sometimes with the financial support of these corporations. COR saw many issues with this model, especially as it pertains to intellectual property. Also, the committee wondered if a student could, in the context of a private company, conduct research that is sufficiently innovative and original to merit a Ph.D. from UCSC.

COR also noted that this plan has been floating around in one form or another for many years. The Senate offered many substantive responses to the initial draft of the plan in spring 2012 and many of these are not answered in the new plan. Partnerships and growth in Silicon Valley ought to be opportunity-led rather than policy-led. COR expects the opportunity to review specific program plans for Silicon Valley as they become available.

### **Consultation with Dean of Graduate Studies and Vice Chancellor for Research**

COR consulted with Dean of Graduate Studies Tyrus Miller and VCR Scott Brandt regarding the plans for graduate growth at UCSC. Dean Miller explained that 2012-13 was the first full year after the graduate growth mandate that came with the Rebenching process. Without time for much preparation, UCSC spurred graduate growth using one-time funds and conversations with different departments about their capacity for growth. These conversations will continue with departments this year, in the context of what they were able to achieve in admissions for 2013-14. More one-time funds will be used to continue this growth, but a more sustainable model must be found.

Dean Miller explained that the sustainable model he envisions is one in which research funds are leveraged for graduate growth in the same way core funds currently are. Faculty must be encouraged to use more of their existing research funds towards graduate students. The high non-resident tuition rates loom large on faculty minds when admitting out-of-state students, as does the relatively low cost of post-docs compared to graduate students. Right now there is not a premium put on graduate support, making it seem not as valuable to have a graduate student instead of a post-doc. This comes from major granting agencies and their push for output rather than process. These agencies do not incentivize the use of graduate students.

Faculty are more inclined to fund graduate students in their second and third years than in their first year. Many will dedicate one quarter of graduate student researcher (GSR) support, which will cover a stipend and resident tuition. Very few of these will pay non-resident tuition. This means that the core block allocation is being eaten up by non-resident tuition. Strategically delivering funds to departments could incentivize grants and take this burden off of block funding. Dean Miller detailed three ways that other UCs are currently incentivizing GSRs:

- UC San Diego uses a blended tuition rate, using a percentage of non-resident tuition and charging all grants the same rate. UCSC's Ocean Sciences department attempted this but experienced faculty opposition;
- UC Davis has a flat buy down on the tuition. This is a subsidy to grant-funded students—a 25% buy down. Dean Miller would want a higher percentage for UCSC;
- UC Berkeley offers outright non-resident tuition grants. UCSC currently offers ~21 fellowships across the divisions that buy up two years of non-resident tuition. Recently at Berkeley, it was announced that for every quarter that a faculty member supports a non-resident tuition student, campus will put up a matching fellowship quarter.

Working with VCR Brandt, Dean Miller is exploring a stepped program similar to the recent Berkely program. Currently, UCSC offers two year fellowships. An analogous structure that could be used in the grant world would be to have a first year offer of: one GSR; one TA; and 1 fellowship quarter. Under a new model, the UCSC Graduate Division could provide one

fellowship quarter in year one and two fellowship quarters in year two. This could be funded with one-time funds, but more financial modeling will be needed in this proposal.

COR asked about a sustainable model for graduate growth that would not rely on one-time funds. Dean Miller answered that this has to be just a piece of the overall picture. Another thing that needs to happen is faculty appointments need to take into account research growth. As the graduate enterprise grows, some of the one-time funded initiatives need to be hardened into permanent funding. VCR Brandt added that the model (detailed above) incentivizes the use of grant funds to bring in new students. Weighting the first year makes it more beneficial to bring students in. Many departments depend almost entirely on block funding for one to two years, meaning that their growth depends entirely on the money campus gives them. A new model would encourage departments to seek more grants that can be leveraged.

COR pointed out that graduate fellowships in the humanities and arts are typically funded privately and asked if any part of the recently launched comprehensive campaign is geared towards funding more of these graduate opportunities. Dean Miller answered that on the one hand there has not been specific graduate division involvement in this effort. On the other hand, the divisional deans have graduate support goals folded into their academic fundraising—such as endowed chairs.

COR asked about the different grant culture across disciplines. For some, the concept of grant incentivization (as seen in the suggested growth model) will be foreign. VCR Brandt explained that the current system of block funding is not sustainable given UCSC's growth goals. Faculty must become less comfortable with the idea that the campus must provide them with funding for two graduate students and that is sufficient. Faculty must be a part of the solution to the graduate growth problem. COR contended that special provisions ought to be made for disciplines where the available grants are not large enough to fund a graduate student. VCR Brandt answered that of course the approach has to be nuanced. Dean Miller added that campus ought to insist that department build strategic profiles, including access to research funding.

COR asked if the graduate growth mandate is signaling an end to the egalitarian vision at UCSC that all disciplines ought to have access to graduate students. VCR Brandt explained that disparity already exists among the departments at UCSC, with computer science as an example with ~120 graduate students due to creative leveraging of central funds and grant funds. The way it has traditionally been done on campus assumes predictability in state funding that no longer exists. The university needs to rethink its strategy. Dean Miller explained that UCSC is lower than the other UC campuses in terms of the graduate student to faculty ratio. The composition of graduate support needs to change, as does the assumption of the weight of graduate study in the overall profile of the university.

COR asked about training grants, which offer high levels of support for graduate students but require skills and effort to successfully acquire. VCR Brandt answered that he and Dean Miller have been discussing this problem and agree that campus needs to pursue training grants with more central support. Resources and staff are needed to acquire these grants. Though campus is not ready to hire a training grant support staff person yet, this is a goal of both VCR Brandt and Dean Miller. COR asked if it were possible to incentivize faculty attempts at these large grants.

Dean Miller and VCR Brandt explained that Senate support for this idea could be crucial and it might need to be addressed in the faculty review process.

COR asked about the troubles in the academic market place (for recent Ph.D. graduates) and whether campus is adequately considering the level of demand for more Ph.D.s. Dean Miller explained that graduate growth has to be driven by faculty decisions. Growth has to be warranted by the strength of the program and the relationship between the program and placement of graduates. Also, UCSC has to improve its career services and training for Ph.D. students.

COR asked about the level of data available for the campus to make these decisions on graduate growth. Dean Miller answered that campus is contracted with a research metric program (Academic Analytics) that provides much more data than UCSC has historically collected. VCR Brandt pointed out that the program simply provides data and it will be up to campus to analyze it and make decisions.

The meeting adjourned at 4:00 pm