

COMMITTEE ON ACADEMIC PLANNING & RESOURCE ALLOCATION  
(CAPRA)

Monday, March 10, 2014

3:30 – 5:00 pm

KL 362

Documents found at [UCMCROPS/CAPRA1314/Resources](#)

AGENDA

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**I. Chair's Report – Anne Kelley**

- A. Update from Division Council meeting on February 24
- B. Update from UCPB meeting on March 4

**II. Consent Calendar**

- A. Approval of the agenda
- B. Approval of the February 13 meeting minutes **Pg. 1-5**

**III. Status of FTE Call and Strategic Focusing Initiative – Anne Kelley**

**Discussion:** 1) Outcome of town hall meetings on strategic focusing initiative. 2) Deadline for submission of FTE proposals.

**IV. Campus Review Items**

- A. Proposal for Public Health Major **Pg. 6-34**  
The Undergraduate Council (UGC) has requested that CAPRA review the proposal to establish a major in public health  
**Action requested:** CAPRA to analyze the space and resource implications of the proposed major in public health. Comments are due to the UGC analyst by Thursday, March 13.
- B. Proposed Medical Education Task Force **Pg. 35-55**  
Background: The Director of HSRI was tasked last year by the Chancellor with reviewing the current status of the PRIME program and possible future steps. This task force is being proposed to ensure broader consultation with faculty and administrators on the future UCM medical education program.  
**Action requested:** CAPRA to review the draft task force charge. Comments are due to the Senate Chair by Thursday, March 13.

- C. Senate-Administration Library Working Group Report **Pg. 56-64**  
Background: The Working Group was reformed in fall 2013 to seek input from campus stakeholders on the future of Library resources and role of the Library in the campus research mission. In January 2014, the Working Group submitted its final report of recommendations to the Provost and Senate Chair.  
**Action requested:** CAPRA to analyze the space and resource implications of the Working Group's recommendations. Comments are due to the Senate Chair by Tuesday, March 25.
- D. Research Units **Pg. 65-80**  
Background: The Committee on Research drafted a set of comprehensive policies on the establishment and review of research units on campus.  
**Action requested:** CAPRA to analyze the space and resource implications of the proposed policies on research units. Comments are due to the Senate Chair by Tuesday, March 25.

V. Other Business

**Committee on Academic Planning and Resource Allocation (CAPRA)**  
**Minutes of Meeting**  
**February 13, 2014**

Pursuant to call, the Committee on Academic Planning and Resource Allocation met at 3:30 pm on February 13, 2014 in Room 362 of the Kolligian Library, Chair Anne Kelley presiding.

I. Chair's Report

Chair Kelley updated members on the following topics from the January 7 and February 4 UCORP meetings:

--Composite benefit rates. The controversy lies in the fact that UCOP considered a model where faculty summer salaries are charged the same benefits rate as their academic year salaries. The difficulties surrounding the establishment of UC Path have compounded the issue. UCOP and faculty are currently at an impasse.

--Capital projects. A letter from UCOP related to capital outlay projects was circulated to CAPRA members prior to this meeting. Capital projects were previously funded by state bonds. Now, UC is being asked to pay for capital projects from its operating budget. The issue is whether the decision to fund capital projects in this manner should be made at the campus level or by UCOP. UCPB recommended it be handled centrally by UCOP, but also emphasized that this must be considered a stopgap measure only until the state returns to funding capital projects in the usual way.

--Tuition policy. The Governor is in favor of freezing tuition. One alternative, which has been discussed for several years, is to establish cohort tuition but UCPB does not advocate this.

--Self-supporting graduate degree programs and professional degree supplemental tuition policy. CAPRA has already opined.

--Campus budget committee. Professor Kelley, as CAPRA chair, is a member of this committee. The first meeting was held today and the next will be held in March.

## II. Consent Calendar

**ACTION:** Today's agenda and the minutes from the December 10, 2013 meeting were approved as presented.

## III. FTE Process

In preparation for Provost Peterson's impending arrival, CAPRA members discussed the status of the FTE call. (CAPRA drafted a call in fall semester and submitted it to the Provost on November 26 for his review).

Traditionally, CAPRA's call for FTE requests was submitted in early December, but as this is a transitional year, the call still has not been sent to the campus. CAPRA members reviewed the call and discussed the need for revisions. It is important that the call be sent in a timely manner so that FTE lines can be released by the Provost in July for faculty recruitment in August. CAPRA members suggested decoupling the strategic focusing initiative process from CAPRA's FTE call and just proceeding with the regular call independent of strategic focusing's timeline. CAPRA members also discussed how to revise the strategic planning component of the call, as faculty will find it challenging to provide their space needs when that information is still largely unknown.

CAPRA members also discussed Provost Peterson's statement at the fall semester Meeting of the Division in which he announced his intention to eventually tighten the parameters of faculty start up funds. He mentioned in that meeting that unspent start up funds present a somewhat misleading picture to UCOP and so these unused funds must be addressed before Merced can request additional funding from UCOP. CAPRA members discussed the need for bridge funding or other sources of funding if faculty will no longer be allowed to receive multi-year extensions to their start up packages.

## IV. Guest – Provost/EVC Peterson

Provost Peterson joined the meeting to speak to CAPRA members about the FTE process and the campus budget situation. When told that faculty are

concerned over the delay in sending the call for FTE request, the Provost explained that there are three factors to understand: 1) in terms of faculty recruitment, there are approximately 34 searches occurring at the moment. Half are new positions and the rest are either carry over lines from unsuccessful searches from last year or replacement positions. 2) the campus is in the middle of the strategic focusing initiative. The first phase went well. But in the second phase, the strategic focusing committee is debating whether to include every faculty member's research under the umbrella of the campus's research mission, or, whether we should aim for establishing general pillars of research. Faculty hiring plans will have to reflect a roadmap that describes a multi-year trajectory for the campus to strengthen the pillars as well as the other areas of research that may not exactly align. 3) the campus budget is still not ready to be distributed. The campus is not decreasing the number of students, but we are slowing the growth for one or two years. For at least the next three years, after SE 2 comes online and COB 2 is built, we will have no new space. To meet the goals of Project 2020, we will need to have between 300-400 faculty members by 2020. A straight-line growth trajectory toward this goal is not realistic given our space challenge.

Provost Peterson then presented CAPRA members the idea of scaling back on new faculty positions for one year to allow the campus to pause and catch up. The Provost suggested 12 positions for next year. Since we don't yet have a roadmap from the strategic focusing initiative, this slowing of faculty growth could allow us to better plan for future hires. The Provost urged CAPRA members and all faculty members to provide him feedback on this idea and what its ramifications would be for our academic programs.

A brief question and answer period followed. A CAPRA member inquired if this pause in faculty hiring means that the faculty currently on campus, in particular those untenured, would be better taken care of. The Provost assured the CAPRA members that his intention is to build infrastructure to support our current faculty that includes research support as well as administrative support. However, space is a problem. In response to a question about faculty hires being tied to undergraduate enrollment, Provost

Peterson reiterated that undergraduate enrollment provides much of the campus funding, however, he agrees that more ladder-rank faculty need to be hired. Since the campus's inception, it has invested in non-ladder rank faculty (LSOEs and unit 18 lecturers) but looking ahead, Merced needs to be more in line with other campuses and increased ladder-rank faculty. A CAPRA member pointed out that many programs do not have the critical mass to maintain solid graduate programs, so slowing faculty growth may exacerbate the problem. Another CAPRA member mentioned that faculty in high-enrolled disciplines would be concerned with getting fewer faculty FTEs. Provost Peterson emphasized that the rate of faculty growth will slow, but will not stop; moreover, as mentioned, student enrollment will also stop increasing.

When told that faculty members are still unsure about new space on campus, what is available in SE 1 and SE 2, and the difficulties in strategic planning, the Provost replied that he does not want to balkanize SoE and SNS and he recognizes that in previous years, this may have been the case as SE 2 was being conceived. The Provost said he is trying to move as many faculty as possible from Castle to campus, however, there is a financial inefficiency inherent in this process because new faculty hires will have to be placed at Castle.

CAPRA members then asked the Provost about the future of unspent start up funds. The Provost replied that he remains committed to viable, competitive start up packages for new faculty hires, which means he must take a more quantitative approach to them and to start up funds held by existing faculty members. The Provost will focus on what faculty members specifically need and when they should spend the funds, however, he will also explore ways to provide faculty with bridge funding and funding for international travel. The Provost wants to be more organized and regimented about start up funds, however, he emphasized that nobody's start up funds will be seized or swept. He encouraged faculty to come speak to him if they remain concerned.

The Provost stated that he is not altering the hiring plans for this year and they will proceed as planned.

The Provost said he reviewed the draft call for FTE requests that CAPRA submitted to him in fall semester and he has no issue with it. However, in light of his suggestion of scaling back faculty hires, he asked CAPRA to consider revising the call. CAPRA members responded that they will revise the draft to reflect a call for FTE requests only, decoupled from a larger, strategic plan request.

**ACTION:** The draft call for FTE requests will be revised based on today's discussion with the Provost. The revised draft will be circulated among CAPRA members for review and will then be submitted to Provost Peterson.

There being no further business, the meeting adjourned at 4:30 pm.

Attest:

Anne Kelley, Chair

Minutes prepared by:

Simrin Takhar, Senate Senior Analyst

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SCHOOL OF SOCIAL SCIENCES, HUMANITIES AND ARTS

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February 28, 2014

To: Undergraduate Council

Re: Major in Public Health Proposal

On February 5, 2014, the School of Social Sciences, Humanities and Arts Curriculum Committee unanimously voted to approve the *Major in Public Health* proposal.

On February 26, 2014, the voting period to consider the *Major in Public Health* concluded with the proposal being approved by the SSHA faculty. Therefore, on behalf of the School of Social Sciences, Humanities and Arts, I submit to you the *Major in Public Health* proposal (40 votes for; 2 vote against\*; 0 abstention; 39 ballots not returned\*\*).

A copy of the *Major in Public Health* proposal is enclosed for your review. We request that the proposal be approved effective Fall 2014. The SSHA assessment specialist supported the faculty efforts in the creation of the PLOs, curriculum map and corresponding multi-year assessment plan, ensuring compliance with campus [guidelines](#).

Thank you for your consideration.



Mark Aldenderfer  
Dean, SSHA

CC: Sholeh Quinn, Chair, SSHA Curriculum Committee  
James Ortez, Assistant Dean, SSHA  
Megan Topete, Manager of Instructional Services, SSHA  
Morghana Young Alfaro, Manager of Student & Program Assessment

Enclosure

\* Reasons for 2 votes against will be sent as an appendix to this packet for UGC members only.

\*\*Faculty were notified that a lack of response would be considered implicit approval.





SCHOOL OF SOCIAL SCIENCES, HUMANITIES & ARTS  
PUBLIC HEALTH  
5200 N LAKE ROAD  
MERCED, CA 95343

Jan 27, 2014

To: Sholeh Quinn, SSHA Curriculum Committee

Re: Proposal for a BA in Public Health

Dear Sholeh,

Attached is our proposal to introduce a Major in Public Health beginning in Fall 2014. Also attached is the Transmittal Memo from Jan Wallander (APC of Psychological Sciences) describing the results of the vote.

In developing the proposal, we have been careful to ensure that it could be provided with existing resources. As you will see in the proposal, we outline the faculty who are able to teach each of the required and optional courses. In addition, I have also included (below) our course schedule for the 2014/15 year. We have several new faculty joining us in the coming year, so there are places where we list 'lecturer' but the course will actually be taught by ladder ranked faculty. The list of courses with instructors is below, with lecturers currently required for PH 100 (Epidemiology, taught currently by Paul Mills at UCSF-Fresno and Derry Ridgway), and Healthcare Ethics (currently taught by Derry Ridgway).

There are also several new courses that are listed, and we will submit the CRFs for those in the next few weeks.

Thank you again for considering this and please let me know if you would like any additional information.

Paul Brown  
On behalf of the Public Health Advisory Committee

cc. Megan Topete, James Ortez

	<b>Course</b>	<b>Instructor</b>	<b>Title</b>
Fall	Ph 01	PS1	Introduction to Public Health
	PH 05	Gonzalez	Global and International Public Health
	PH 100	Ridgway	Epidemiology
	PH 102	PS1	Health promotion and behavior
	PH 110	Cisneros	Environmental Health
	PH 115	Cisneros	Research Methods: GIS
	New Course	Gonzalez	Latino/a Health
	PH 104	Ramirez	Health and the Media
	New Course	Joyce	Insects and Public Health
	PH 108	Brown	Health care in the SJV
	New Course	Wooding	Public Health Genetics
Spring	PH 01	Cisneros	Introduction to Public Health
	PH 100	Mills	Epidemiology
	PH 103	Ramirez	Health Communication
	PH 111	Gonzalez	Research Methods: Social Epi
	New Course	Wooding	Public Health Research Internship
	PH 185	Ridgway	Healthcare Ethics
	PH 105	Brown	Introduction to the US Healthcare system
	New course	Brown	Research methods
	New Course	Joyce	Insects and Public Health

PS1 = Prevention Sciences hire

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**JAN L. WALLANDER, PH.D.,**  
**PROFESSOR AND CHAIR OF PSYCHOLOGICAL SCIENCES**

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12 February 2014

**RE: Vote to recommend proposal for public health B.A.**

The proposal for public health B.A. was discussed in a faculty meeting on 22 Jan 2014 followed by an email vote submitted to the Chair. From the 16 eligible faculty in the bylaw unit of Psychological Sciences, containing the faculty affiliated with Public Health, the vote as of 27 Jan 2014 was:

15 Yes, in favor  
0 No  
1 Unreturned

Sincerely,



**Jan L. Wallander, PhD**

Professor and Chair of Psychological Sciences  
University of California, Merced

*Mailing Address:* 5200 North Lake Rd, Merced, CA 95343

*Physical/Delivery Address:* 317 COB, UC Merced, 5200 North Lake Rd., Merced, CA 95343

## **Proposal for a Public Health B.A.**

### **1. Program Description and Rationale**

Public Health is the science of protecting and improving the health of the public through education, promotion of healthy lifestyles, and research regarding disease- and injury-prevention. Public Health professionals analyze the effects of genetics, personal choice and environmental forces in order to track the spread of diseases, understand health-related behaviors, and develop programs and policies that protect the health of families and communities. <sup>1</sup> Overall, Public Health is concerned with protecting the health of entire populations, from those as small as a local neighborhood to those as large as an entire country or region of the world.

Broadly speaking, the mission of Public Health is to assure people can be healthy in society. Whereas medicine is concerned with understanding individual causes and treatments of diseases and illnesses, Public Health focuses on the community and the health of the population. This means assessing the population's health, understanding the causes and determinants of health challenges and problems and identifying ways to improve the population's health. In some cases, this might mean working to help people gain access to existing medical services, while in other cases it might require introducing population-wide interventions.

Because Public Health is a broad, interdisciplinary field, knowledge of Public Health includes:

- the tools needed to understand the basic science of Public Health,
- familiarity with the biomedical basis of Public Health, (including disease transmission and containment),
- the societal determinants of health and why health and healthcare disparities arise,
- how the environment affects health,
- the role of the medical system in population health,
- population-level interventions aimed at improving health,
- the role of health communication and promotion in improving the population's health, and
- the challenges faced by Public Health officials in the United States, including disaster preparedness.

As a result, Public Health training at the undergraduate level prepares students not only for careers in the field of healthcare and health sciences, but provides students with transferable skill sets that can be taken into other areas like public policy, education, and the general business setting. Public health practitioners are active in a wide variety of settings from healthcare facilities, to government agencies, to non-governmental organizations and for-profit industries. Public health practitioners inform the practices of a wide variety of organizations, and their involvement ranges from developing wellness and ergonomic programs for corporations to developing, implementing, and analyzing the effects public health regulations such as calorie labeling regulations.

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<sup>1</sup> [www.whatispublichealth.org/what/index.html](http://www.whatispublichealth.org/what/index.html)

## **Faculty and Growth of Public Health Programming:**

### **1.1 A public health major: Allowing students to make a difference in the San Joaquin Valley while at UC Merced**

An undergraduate major in Public Health would benefit the students, the University as a whole, and the communities of the San Joaquin Valley. Since its introduction in 2010, the Minor in Public Health has proven to be extremely popular with students, rising to become the 7<sup>th</sup> most popular minor at UC Merced. Public Health courses have not only allowed students to develop a theoretical and scientific background to become public health practitioners, but they have focused on teaching students to do public health-related research on health issues in the SJV (many of our courses ask students to examine public health-related SJV issues) and allow students to get hands-on practical experience in direct public health research (e.g., PH 181: Public Health Research). As a result, adding a Public Health major is a natural step to meeting the demand for public health training from not only students and regional public health departments.

As described below, our course of study will provide students with courses in the 5 core areas of Public Health (epidemiology, statistics, health services research, social and behavioral science, and environmental health), with a specific focus in the BA degree on health promotion/health communication and health services research. A companion degree, a BS in Public Health, will be submitted through the Natural Science faculty and will include the core elements of Public Health described above, but aimed at students with an interest in the natural sciences, particularly infectious disease and Public Health genetics.

A Public Health course of study would help fulfill the University's mission of providing interdisciplinary research and courses of study that connect academic disciplines and addresses issues in the San Joaquin Valley. Public Health is an interdisciplinary course of study, with researchers and teachers from a variety of disciplines collaborating to address problems relevant to the region, the state and the larger society. As such, Public Health is consistent with the mission of the university.

Finally, through our research and training of students, Public Health can help to address some of the most significant challenges facing the people of the San Joaquin Valley. One of the major challenges is the high prevalence of most major health conditions (e.g., heart disease, diabetes, asthma, alcohol and drug abuse) and challenges experienced by specific populations defined by socioeconomic, cultural, and linguistic characteristics. A public health curriculum that focuses on the issues of the people of the region will help ensure that a large portion of our college graduates are knowledgeable about and interested in addressing health problems in the region, either professionally or as citizens.

The Public Health major's contribution to the region will be enhanced by our requirement that students engage in either a project with a researcher or a community organization (our service learning requirement). Students will be given the opportunity for service learning via participation in research or an internship with a local health provider. Researchers at UC Merced as well as a number of public, non-profit and private health organizations in the Merced region have been invited to propose projects that require the type of knowledge and expertise students will have gained through their course of study. The students will work with the researcher or host organization to complete the project within the semester. Thus, the internships will benefit the participating organizations while simultaneously utilizing and expanding the skills of the student.

### *1.1.1. Guiding factors in developing the major*

In developing the Public Health major proposal, we have been influenced by three factors.:

The first are the recommendations from the Association of Schools and Programs in Public Health. The association is in the process of developing standards for accrediting undergraduate Public Health degrees.<sup>2</sup> Although we are not seeking accreditation at this time, we are mindful to develop our course of study so as to be consistent should we choose to seek accreditation in the future.

The second influence was the undergraduate Public Health programs at other University of California campuses. We have been particularly influenced by the model at UC Berkeley, and have had the opportunity to speak with faculty and administrators associated with that program. Thus, the course of study we present has much in common with their successful program.

Finally, we have been mindful of the need to use existing courses and resources on campus whenever possible. This has been done in part for budgetary reasons (e.g., wanting to make efficient use of existing courses), but also for pedagogical reasons as well: Public Health is, by its nature, an interdisciplinary course of study, and thus it benefits students to be exposed to other students and other approaches to addressing Public Health problems. While the core courses in Public Health are taught by our faculty, we have tried to integrate other perspectives where possible and will continue with this approach as the degree progresses.

### ***1.22 How the program will contribute to undergraduate education at UC Merced***

The BA degree in Public Health will be an exciting course of study that will prepare students for careers in Public Health or graduate study in a Master/PhD/DrPH of Public Health program. The major in Public Health will be the only health-related undergraduate BA program. At present, students interested in pursuing careers or further study in health are encouraged to study Human Biology. Although a fine course of study for students with an interest in biology, it is less relevant for students who wish to pursue careers in other health related areas. The proposed BA in Public Health will allow students to focus on a number of areas relevant to Public Health, including health promotion and communication as they relate to the preventive of chronic diseases, environmental health with its concentration on the role the physical environment plays in determining the health of the population and interventions that can reduce the negative impacts on human health, and health services research with its focus on the improving access and quality to health care services while reducing the cost of healthcare.

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<sup>2</sup> <http://www.asph.org/document.cfm?page=857>

### ***1.33 Job market demand, graduate education/professional school prospect for majors and expected student demand***

#### *1.33.1 Job market demand and graduate education/professional school prospect for majors*

Talks with regional Public Health Departments have indicated that there is a shortage of adequately trained public health professionals and practitioners in the SJV. As a result, our major would provide a pool of trained entry- level public health workers for the region.

Currently, Public Health degrees are filling a growing demand in the healthcare job market demand. At present, the health sector constitutes around 16% of GDP, with the expectation that this will grow to nearly 20% in by 2020.<sup>3</sup> Nationwide, the healthcare sector is adding around 20,000 jobs per month, with a large percentage of these in California.<sup>4</sup> While the largest single category of positions are nurses (at approximately 40% of the workforce, with physicians constituting less than 10%), nearly half of all employment in the health sector are in non-clinical positions.<sup>5</sup> Many of these were positions were traditionally filled by people with clinical degrees who either came back to study Public Health (e.g., epidemiology or health promotion) or a related discipline (e.g., health management). However, the past 20 years have seen a rapid growth in the training and employment of people from both the social and natural sciences into health care and Public Health. This growth first occurred at the graduate level (Masters of Public Health and PhD in Public Health), but more recently has occurred in undergraduate training. For instance, in 2000, only a handful of universities offered undergraduate degrees in Public Health. As of 2008, nearly 20% of all US universities with Public Health graduate programs had an undergraduate minor in Public Health,<sup>6</sup> and 10% had an undergraduate major. These numbers have continued to rise since the time of that survey to the point where undergraduate minors in Public Health are now commonplace.

A similar trend has occurred in graduate programs in Public Health. The rise in graduates has been due primarily by an increase in demand for graduates,<sup>7</sup> making the MPH one of the most attractive courses of study for students interested in finding rewarding careers after graduation. The reasons for this trend are varied, but underlying the growth in non-clinical degrees in healthcare is a realization that the only way to control the cost, improve access, improve quality, and improve the health of the population long term is to focus on prevention of disease and improving the efficiency of our healthcare system. These areas are the focus of Public Health.

#### *1.33.2 Expected student demand*

Projecting student enrollment for a new major is an inexact science, but we would note since its introduction in 2010, the Minor in Public Health has proven to be extremely popular with students, rising to become the 7<sup>th</sup> most popular minor at UC Merced. To gauge the level of interest in UC Merced offering PH as a undergraduate Major and as a Graduate Degree, we polled 150 Social Science and Natural Sciences students who were taking their first Public Health course (e.g., none had taken any Public Health courses), asking them to indicate their interest in pursuing a Minor in PH, a Major in PH, and/or a Graduate Degree PH. As shown in the table below, there

<sup>3</sup> <http://www.bloomberg.com/news/2012-06-13/health-care-spending-to-reach-20-of-u-s-economy-by-2021.html>

<sup>4</sup> [http://www.huffingtonpost.com/2012/12/07/health-care-jobs\\_n\\_2257872.html](http://www.huffingtonpost.com/2012/12/07/health-care-jobs_n_2257872.html)

<sup>5</sup> <http://www.bls.gov/news.release/pdf/ecopro.pdf>

<sup>6</sup> [http://www.aacu.org/public\\_health/catalog\\_scan.cfm](http://www.aacu.org/public_health/catalog_scan.cfm)

<sup>7</sup> <http://www.bls.gov/ooh/community-and-social-service/health-educators.htm>

is a high level of interest in the Minor in PH, but increased interest in having an Undergraduate major and Graduate degree.

**Table 1: Interest in Minor, Major and Graduate Study in Public Health**

	<b>Minor in Public Health?</b>	<b>Major in Public Health?</b>	<b>Graduate study in Public Health?</b>
<b>Overall</b>	58%	68%	71%
<b>Social Science</b>	54%	61%	67%
<b>Natural Science</b>	69%	90%	83%

Though the demand is particularly high among Natural Science students, it was also high among social science students as well. Given that the students were taking their first Public Health course, it suggests that student demand is likely to be robust.

The students were also asked to indicate their level of interest in different areas of graduate study. As shown below, students expressed a high level of interest in each of the four areas polled, with Natural Science students showing a particular interest in Environmental Health. However, interest was high in all areas of Public Health.

**Table 2: Interest in Graduate Study in Public Health**

	<b>Health promotion /communication</b>	<b>Epidemiology</b>	<b>Environmental Health</b>	<b>Health policy</b>
<b>Overall</b>	88%	82%	90%	83%
<b>Social Science</b>	89%	84%	89%	84%
<b>Natural Science</b>	86%	79%	93%	83%

Finally, we would note the experience of UC Berkeley. Personal communication with the program coordinator and major advisor indicated that the degree has been tremendously popular, to the point where they have capped the number of majors at 300. Anecdotal evidence from other universities around the US suggest a similar level of student demand.

***1.44. Relation to existing undergraduate programs/B.A.s***

*1.44.1 Relation to existing programs at UC Merced*

Because BA in Public Health will be the only health-related BA on campus, it will not be in direct conflict with any other undergraduate major.

*1.44.2 Relation to programs at other UC campuses*

The UC Campuses offer the following training in Public Health:

- UCLA
  - Graduate - MPH and PhD in Public Health
  - Undergraduate - Minor in Public Health; only 25 slots per year are available each year.
- UC Irvine



- Graduate - MPH and PhD in Public Health
- Undergraduate - Minor in Public Health, a BA in Public Health Policy, and a BS in Public Health Sciences.
- UC San Diego
  - Graduate - MPH and PhD in Public Health in conjunction with San Diego State University
  - Undergraduate - BS in Public Health.
- UC Riverside
  - Graduate - MPH and PhD in Public Health
  - Undergraduate - No undergraduate program in Public Health.
- UCSF
  - Graduate - No graduate program in Public Health
  - Undergraduate - No undergraduate program in Public Health
- UC Santa Barbara
  - Graduate - No program in Public Health
  - Undergraduate - No undergraduate program in Public Health
- UC Santa Cruz
  - Graduate - No program in Public Health
  - Undergraduate - No undergraduate program in Public Health
- UC Davis
  - Graduate - MPH and PhD in Public Health
  - Undergraduate - Undergraduate courses in Public Health, but no formal program
- UC Berkeley
  - Graduate - MPH and PhD in Public Health
  - Undergraduate - Minor in Public Health, a BA in Public Health Policy, and a BS in Public Health Sciences.

Note that UC Berkeley's enrolment is capped at 300 due to a high demand among undergraduates, and UCLA has capped enrolments as well.

***1.55. Availability of suitable preparatory courses at community colleges.***

Transfer students who wish to major in Public Health should complete the Intersegmental General Education Transfer Curriculum (IGETC) at their community college. In addition, students should complete at least one full-year UC-transferable introductory course sequence selected from their intended concentration as well as introductory courses in anthropology, art history, economics, history, political science and/or sociology.

## 2. Program Requirements (See Appendix A for course descriptions)

### 2.1 Lower division and upper division course requirements

- **Requirements (56 units in all):**

A. Lower-division courses: (16 units)

1. PH 001: Introduction to Public Health
2. BIO 003: Molecular basis for health and disease,
3. Statistics course: MATH 18 or PSY 10
4. PH 005: Global and International Public Health

B. Upper-division courses: (24 units)

1. PH 100: Introduction to epidemiology
2. PH 102: Health promotion and behavior
3. PH 103: Health communication
4. PH 105: Introduction to the US Healthcare System
5. PH 110: Environmental Health
6. Research methods for Public Health (1 course)
  - a. PH 111: Social epidemiology
  - b. PH 112: Health services research
  - c. PH 115: GIS Mapping

C. Service/Research requirement (8 units)

1. PH 108: Introduction to healthcare in the San Joaquin Valley
2. PH 181: Public Health research

D. Two Electives (8 units)\*:

1. PH 104: Health and the media
2. PH 113: Latino and immigrant health
3. PH 125: Emerging Public Health threats
4. PH 135: Public Health genetics
5. PH 137: Insects and Public Health
6. PSY 124: Health disparities
7. PSY 147: Health psychology
8. PH 185: Healthcare ethics
9. ANTH 120: Introduction to Medical Anthropology
10. ANTH 121: Ethnomedicine
11. BIO 010: Genetics, Stem Cells and Development
12. BIO 060: Nutrition
13. BIO 140: Genetics
14. BIO 161: Human Physiology
15. ECON 145: Health Economics

\*(Please Consult a SSHA Advisor, the SSHA Advising website ([ssha-advising.ucmerced.edu](http://ssha-advising.ucmerced.edu)) or [MyAudit](#) for the most updated list.)

**Total: 56 Units**

## **2.2 Program Learning Goals and Outcomes**

### **2.2.1 Program learning goals**

The Public Health major learning outcomes illustrate the ideals that the faculty members will work towards to support students' academic experience at UC Merced. Faculty will strive to realize the following goals:

1. Expose students to the theories and principles of Public Health to explore to a new Public Health problem.
2. Develop students' scientific literacy to assess complex Public Health challenges with special consideration of strategies for health promotion at the individual, community, and policy levels as appropriate.
3. Engage students with assignments that include rigorous research on contemporary Public Health challenges.
4. Support students in effectively and persuasively, orally and in writing, communicating complex concepts and information in a clear and concise manner.
5. Expose students to causes and risk factors in the major areas of focus in Public Health including but not limited to determinants of mortality and morbidity; leading causes of health disparities among regional, national, and global populations; and, transmission for infectious and chronic diseases.
6. Explore with students the roles and responsibilities of government, non-governmental organizations, and private citizens in maintaining Public Health.

### **2.2.2 Program learning outcomes and how course requirements address intended learning outcomes**

The outcomes make explicit the learning goals (above) for all audiences; they communicate the specific skills and knowledge-base that students will demonstrate upon completion of the major in Public Health. Students who complete the major in Public Health will be able to:

1. Define public health and describe the roles and responsibilities of government, non-governmental organizations, and private citizens in maintaining public health.
2. Use the theories and principles of Public Health to explain a Public Health problem.
3. Apply public health research methods to conduct rigorous research on public health issues.
4. Describe causes and risk factors in the major areas of focus in public health, including but not limited to determinants of mortality and morbidity; leading causes of health disparities among regional, national, and global populations; and transmission for infectious and chronic diseases.
5. Identify and analyze scientific data and other information to assess complex Public Health challenges, with special consideration of strategies for health promotion at the individual, community, and policy levels, as appropriate.
6. Communicate effectively and persuasively, orally and in writing, particularly to convey complex concepts and information in a clear and concise manner.

### **2.2.3 Goals across coursework, PLOs, SSHA, and UC Merced**

In the Curriculum Chart below, we note that in many of the Public Health courses, all of the PLOs are addressed to great extent. The following Curriculum Chart illustrates the relationship between

PLOs and program courses (I=Introduction, D=Develop, M=Mastery at a level appropriate for graduation from the major program).

Courses	Program Learning Outcomes					
	1	2	3	4	5	6
PH 01	I	I	I	I	I	I
PH 05	I	I	I	I	I	I
PH 100	D	D,M	D,M	D,M	D,M	I
PH 102	D,M	D,M	D	D,M	D,M	D,M
PH 103	D,M	D,M	I	I	D,M	D,M
PH 105	D,M	D,M	D	D,M	D,M	D
PH 110	D,M	D,M	D	D,M	D,M	D
PH 111	D	D	D,M	D,M	D,M	D
PH 112	D	D	D,M	D	D,M	D
PH 115	D	D	D,M	D	D,M	D
PH 108	D,M	D	D	D,M	D	D,M
PH 181	M	M	M	M	M	D,M

The Public Health PLOs align with the goals of the University of California, Merced in several ways. Below we outline how the degree and its PLOs link with each of the *Eight Guiding Principles of General Education*.

Table I: Curriculum Map representing the alignment between the major in Public Health PLOs and the *Eight Guiding Principles of General Education*.

PLOs	Scientific Literacy	Decision Making	Communication	Self & Society	Ethics & Responsibility	Leadership & Teamwork	Aesthetic Understanding Creativity	Development of Personal Potential
1	X	X		X	X	X	X	X
2	X	X	X	X	X			
3	X	X		X	X	X	X	
4	X	X	X	X	X	X		X
5	X	X		X	X			
6	X	X	X	X	X	X	X	X

### 2.3 Assessment

The Public Health faculty members have developed a full assessment plan that will satisfy the requirements for WASC accreditation. We describe the principal components of the plan below.

### 2.3.1 *Timeline & Goals*

AY 2014/15: The goal will be to assess PLO#1

Define public health and describe the roles and responsibilities of government, non-governmental organizations, and private citizens in maintaining public health.

AY 2015/16: The goal will be to assess PLO#2

Use the theories and principles of Public Health to explain a Public Health problem.

AY 2016/17: The goal will be to assess PLO#3

Apply public health research methods to conduct rigorous research on public health issues.

AY 2017/18: The goal will be to assess PLO#4

Describe causes and risk factors in the major areas of focus in public health, including but not limited to determinants of mortality and morbidity; leading causes of health disparities among regional, national, and global populations; and transmission for infectious and chronic diseases.

AY 2018/19: The goal will be to assess PLO#5

Identify and analyze scientific data and other information to assess complex Public Health challenges, with special consideration of strategies for health promotion at the individual, community, and policy levels, as appropriate.

AY 2019/20: The goal will be to assess PLO#6

Communicate effectively and persuasively, orally and in writing, particularly to convey complex concepts and information in a clear and concise manner.

### 2.3.2 *Evidence - how it will be analyzed and how we will use it to improve student learning*

**Outcome 1** Define public health and describe the roles and responsibilities of government, non-governmental organizations, and private citizens in maintaining public health.

Direct evidence: In upper division courses where students are expected to demonstrate a mastery of this outcome and where the assessment approach includes multiple choice or essay questions (PH 102,103, 105 and 110), we will include questions that are determined by the faculty to indicate mastery of this outcome. For courses where the assessment approach includes a research paper or report (PH 108 and 181), we will assess by including this dimension as part of their course requirement and the faculty will randomly select and review 10 students reports to assess the extent to which they are demonstrating a mastery of the role of government, non-governmental organizations, and private citizens in maintaining public health

To ensure that all seniors are held to a common set of expectations for executing the PLOs, we will implement the following procedures. First, in those courses where multiple choice and short answer questions are used to collect samples of student performance on a specific PLO, the faculty agree on the set of questions to be used in all of their courses. The questions help to assess students' readiness to perform on the same PLO, and therefore the questions need to be uniformly applied in the target courses.

Second, where student papers are used for evidence, a program-level rubric will be designed for the specific PLO with criteria outlined. The criteria is agreed upon by the faculty and

represents the standards of the program for meeting the PLO. No matter the course, the students (generally seniors) will be expected to perform on the same criteria.

Indirect evidence: Exit interviews for graduating seniors will ask the students to reflect on his/her understanding of the role of government, non-governmental, and private organizations in maintaining public health.

**Outcome 2** Use the theories and principles of Public Health to explain a Public Health problem.

Direct evidence: In upper division courses where students are expected to demonstrate a mastery of this outcome and where the assessment approach includes multiple choice or essay questions (PH 100, 102, 103, 105 and 110), we will include questions that determined by the faculty to indicate mastery of this outcome. For courses where the assessment approach includes a research paper or report (PH 108 and 181), we will assess by including this dimension as part of the their course requirement and the faculty will randomly select and review 10 students reports to assess the extent to which they are demonstrating a mastery of theory as it applies to public health.

Indirect evidence: Exit interviews for graduating seniors will ask the student to discuss how theories impact the practice of Public Health and the role that theory is used by government, non-governmental, and private organizations.

**Outcome 3** Apply public health research methods to conduct rigorous research on public health issues.

Direct evidence: In upper division courses where students are expected to demonstrate a mastery of this outcome and where the assessment approach includes multiple choice or essay questions (PH 100, 111, 112, and 115), we will include questions that determined by the faculty to indicate mastery of this outcome. For courses where the assessment approach includes a research paper or report (PH 181), we will assess by including this dimension as part of the their course requirement and the faculty will randomly select and review 10 students reports to assess the extent to which they are demonstrating a mastery of public health research methods.

Indirect evidence: Exit interviews for graduate seniors will ask the student to discuss how the different types of research methodologies that are used by government, non-governmental, and private organizations.

**Outcome 4** Describe causes and risk factors in the major areas of focus in public health, including but not limited to determinants of mortality and morbidity; leading causes of health disparities among regional, national, and global populations; and transmission for infectious and chronic diseases.

Direct evidence: In upper division courses where students are expected to demonstrate a mastery of this outcome and where the assessment approach includes multiple choice or essay questions (PH 100, 102, 105, 110, and 111), we will include questions that are determined by the faculty to indicate mastery of this outcome. For courses where the assessment approach includes a research paper or report (PH 108 and 181), we will assess by including this dimension as part of the their course requirement and the faculty will randomly select and review 10 students reports to assess the extent to which they are demonstrating a mastery of an understanding of the causes and risk factors of mortality and morbidity.

Indirect evidence: Exit interviews for graduate seniors will ask the student to describe the risk factors and causes of mortality and morbidity in the San Joaquin Valley.

**Outcome 5** Identify and analyze scientific data and other information to assess complex Public Health challenges, with special consideration of strategies for health promotion at the individual, community, and policy levels, as appropriate.

Direct evidence: In upper division courses where students are expected to demonstrate a mastery of this outcome and where the assessment approach includes multiple choice or essay questions (PH 100, 102, 103, 105, 110, 111, 112, and 115), we will include questions that determined by the faculty to indicate mastery of this outcome. For courses where the assessment approach includes a research paper or report (PH 108 181), we will assess by including this dimension as part of the their course requirement and the faculty will randomly select and review 10 students reports to assess the extent to which they are demonstrating a mastery of this outcome.

Indirect evidence: Exit interviews for graduate seniors will ask how government, non-governmental, and private organizations in the SJV should use scientific data and other information to assess complex Public Health challenges.

**Outcome 6** Communicate effectively and persuasively, orally and in writing, particularly to convey complex concepts and information in a clear and concise manner.

Direct evidence: In upper division courses where students are expected to demonstrate a mastery of this outcome and where the assessment approach includes multiple choice or essay questions (PH 100, 102 and 103), we will include questions that determined by the faculty to indicate mastery of this outcome. For courses where the assessment approach includes a research paper or report (PH 108 181), we will assess by including this dimension as part of the their course requirement and the faculty will randomly select and review 10 students reports to assess the extent to which they are demonstrating a mastery of this outcome. In addition, PH 181 will require the students to develop and present a research presentation to the faculty.

Indirect evidence: Exit interviews for graduate seniors will assess the extent to which they feel they were given the opportunity to develop written and oral communication skills.

### 2.3.3 Analysis and participants

Evidence will be collected as detailed in Part D by instructors and the *SATAL* program. Data will be analyzed by instructors, program coordinator, and the Program Assessment Committee. Findings will be disseminated to all instructors teaching courses that are part of the major curriculum. Discussions about potential revision of the curriculum and/or PLOs will involve all faculty with an interest in this major.

Assessment Plan Activity	Who
Evidence collection	Faculty Accreditation Officer (FAO) and at least one additional faculty member (rotates depending on which course[s] are included in the assessment plan)
Data entry	Faculty and SSHA Staff
Data analysis	FAO
Dissemination of results	FAO will distribute to all instructional staff (faculty, lecturers, TAs)
Implementation of findings to improve student learning	All faculty

### 2.3.4 Use of findings

These findings for the PH minor have been used to improve student learning in several ways and we will continue in this tradition for the assessment of the major. First, we will disseminate findings to all instructional staff, including faculty, lecturers, and teaching assistants so that they can identify areas of strength and weakness. Second, all faculty will participate in a discussion at least once a year about whether the results from the assessment suggest ways in which we may be able to improve our curriculum, alter the curriculum content, enhance students' skill development, or change our pedagogy. Third, we will share the results with students via the website and in informal gatherings.

**2.4 Sample plan of study for a BA degree in Public Health**

**SEMESTER 1**

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PH 01	Introduction to Public Health	4
Statistics	MATH 18	4
	CORE 1	4
	Optional Course	4
<b>Semester units</b>		<b>16</b>

**SEMESTER 2**

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PH 05	Global and International Public Health	4
WRI 10		4
Bio 003	Molecular Basis of Health and Disease	4
	Elective	4
<b>Semester units</b>		<b>16</b>

**SEMESTER 3**

---

PH 100	Epidemiology	4
PH 112	Research Methods: Health Services Research	4
PH 102	Health promotion	4
	Upper Division General Education 1	4
<b>Semester units</b>		<b>16</b>

**SEMESTER 4**

---

CORE 100	The World at Home	4
PH 105	Introduction to the US Healthcare system	4
	Upper Division General Education 2	4
	Elective	4
<b>Semester units</b>		<b>16</b>

**SEMESTER 5**

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PH 103	Health communication	4
PH 110	Environmental Health	4



	Humanities General Education PH Elective 1	4
<b>Semester units</b>		<b>16</b>
<b>SEMESTER 6</b>		
	PH elective 2	4
	Social Science General elective	4
	Elective	4
	Elective	4
<b>Semester units</b>		<b>16</b>
<b>SEMESTER 7</b>		
PH 108	Introduction to healthcare	4
	Upper Division General Education 3	4
	Elective	4
	Elective	4
<b>Semester units</b>		<b>16</b>
<b>SEMESTER 8</b>		
PH 181	Public Health research	4
SPAN 141	Upper Division General Education 4	4
	Elective	4
	Elective	4
<b>Semester units</b>		<b>16</b>
<b>Total Program Units</b>		<b>128</b>

### *2.5 Catalog Description*

Public Health Major  
School of Social Sciences, Humanities and Arts

Public Health aims to promote health, prevent disease, prolong life and improve quality of life through organized efforts of society. Focusing on the health and wellbeing of populations, Public Health complements medicine's concern for individuals with diseases. Through activities ranging from basic research, to frontline efforts such as vaccination programs, promotion of healthy lifestyles and environments, disease control, and leadership on health policy formation, Public Health issues and outcomes touch the lives of people throughout the world. Public Health is an interdisciplinary field drawing on the natural and social sciences as well as the humanities. One of the most important themes in Public Health is the disparities in health observed in different groups, for example related to economic resources and race/ethnicity, which is a focus in this curriculum.

### **3. Accreditation**

The Public Health major will be subject to WASC substantive change review. The application will be developed in a timely manner.

**4. Resource Needs and Plan for Providing Them**

**4.1 Faculty**

As of AY 2013-2014, the Public Health faculty consists of four full-time ladder-ranked faculty members (Prof. Paul Brown, Assistant Professor Susana Ramirez, Assistant Professor Ricardo Cisneros, and Assistant Professor Mariaelena Gonzalez), and one half-time ladder ranked faculty member (Assistant Professor Andrea Joyce). In addition, two new full-time ladder-ranked faculty members are expected to join UC Merced in Fall 2014 (Steven Wooding, Public Health Genetics, and a new hire in Prevention Sciences).

In addition, Public Health is supported by a larger, interdisciplinary group of faculty. The Public Health Advisory Committee consists of:

UC Merced

Paul Brown (Chair)	Public Health
Ricardo Cisneros	Public Health
Susana Ramirez	Public Health
Mariaelena Gonzalez	Public Health
Andrea Joyce	Public Health
Jan Wallander	Health Psychology
Anna Song	Health Psychology
Linda Cameron	Health Psychology
Deb Wiebe	Health Psychology
Zulema Valdez	Sociology
David Ojcius	Natural Sciences
Jinah Choi	Natural Sciences
Rudy Ortiz	Natural Sciences
Macros Garcia-Ojeda	Natural Sciences
Miriam Barlow	Natural Sciences
Steve Roussos	Blum Center and HSRI
Derry Ridgway	Medical Education

External Advisors

Paul Mills	UCSF – Fresno
Nancy Young	Community government
Kathleen Grassi	Merced Country Department of Public Health
Erica Robbins	Pre-Health Advisor (Natural Sciences)
Alisha Kimble	Public Health Minor Advisor (SSHA)

We are currently in the process of applying to become a Bylaw Unit, with members having either full or partial appointments in Public Health.

*4.1.1 Teaching rotation*

The teaching rotation below allows us to offer all of the required courses every year and most of our elective upper division courses every two years. In the event that a faculty member takes a

leave of absence, has a course release, or teaches a graduate course, the repeat courses may be dropped or taught by a Lecturer. In the chart below, the primary person responsible for course teaching and content is given by 'P,' and others with the expertise to teach the course (secondary) are indicated by 'S.'

	<u>Paul Brown</u>	<u>Ricardo Cisneros</u>	<u>Susana Ramirez</u>	<u>Mariaelena Gonzalez</u>	<u>Steve Wooding</u>	<u>Andrea Joyce</u>	<u>Prevention Sciences</u>	<u>Lecturer</u>
<u>LOWER DIVISION</u> <i>(Required)</i>								
PH 01: Introduction to Public Health	S	P	S	S	S	S	S	S
BIO 003: Molecular Basis of Health and Disease	NATURAL SCIENCE FACULTY							
Statistics Course: MATH 18 or PSY 10	NATURAL SCIENCE FAULTY/SSHA FACULTY							
PH 05 Global Public Health	S	S	S	S			P	S
<u>UPPER DIVISION</u> <i>(Required)</i>								
PH 100: Introduction to Epidemiology				S			P	S
PH 102: Health behavior and promotion			P				S	S
PH 103 Health communication			P				S	S
PH 105: Introduction to US Healthcare System	P			S				S
PH 111 Environmental Health		P						S
Research Methods								
• PH 111 Social Epidemiology	S		S	P			S	S
• PH 112 Health services research	P			S			S	S
• PH 115 GIS Mapping		P						
PH 108: Introduction to Health Care	S	S	S	S	S	P	S	S
PH 181: Public Health Research	S	S	S	S	P	S	S	S

	<u>Paul Brown</u>	<u>Ricardo Cisneros</u>	<u>Susana Ramirez</u>	<u>Mariaelena Gonzalez</u>	<u>Steve Wooding</u>	<u>Andrea Joyce</u>	<u>Prevention Sciences</u>	<u>Lecturer</u>
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<u><i>ELECTIVE COURSES</i></u>								
PH 104: Health and the media			P					
PH 113: Latino and immigrant health			P	P				
PH 125: Public Health Threats								P
PH 135: Public Health genetics					P			
PH 137: Insects and Public Health						P		
PH 185 Health care ethics								P
ANTH 120: Intro to Medical Anthropology	SSHA FACULTY							
PSY 124: Health disparities	SSHA FACULTY							
PSY 147: Health psychology	SSHA FACULTY							
ANTH 121: Ethnomedicine	SSHA FACULTY							
BIO 010: Genetics, Stem Cells and Development	NATURAL SCIENCE FACULTY							
BIO 060: Nutrition	NATURAL SCIENCE FACULTY							
BIO 140: Genetics	NATURAL SCIENCE FACULTY							
BIO 161: Human Physiology	NATURAL SCIENCE FACULTY							
ECON 145: Health Economics	SSHA FACULTY							

**4.2 Needs for specialized staff (FTE)**

The present number of faculty is sufficient to teach the requirements for the major in Public Health. In addition, lecturers are readily available in the San Joaquin Valley with expertise in specific areas, such as epidemiology, health promotion, and health systems. Additional hires will target specific areas of expertise, including epidemiology, health policy, and health communications and promotion.

**4.3 Specialized space needed**

The major in Public Health does not need specialized space.

**4.4 Library resources**

The interlibrary loan system will facilitate students and faculty the needed materials for teaching, learning, and research that the UC Merced library may lack.

## **5. Potential for Non-Majors to Participate**

There are many opportunities for non-majors to participate in the Public Health program. Several of our introductory classes, such as PH 05 Global Public Health, are listed as general education classes and we are currently requesting that PH 01 and PH 05 be categorized as GE classes. We are also in the process of cross-listing classes, for example, Social Epidemiology (PH 111) will be cross-listed with the Genders Studies minor, if it is approved, and Latino and Immigrant Health (PH 113) will be cross-listed with the Chicana/o and Latina/o Studies Program. . We are also in the process of starting an undergraduate Public Health Association, which will be open to all students on campus, and PH 181: Public Health Research (in which students sign up to work with individual faculty or conduct public health- related internships in the community) will be open to non-majors. The inherent interdisciplinary nature of Public Health will create a vibrant and interesting venue for students from across campus to interact and work together to improve their community.

## **6. Timetable for Implementation**

Current staffing and resources are adequate to service the Public Health major. We propose implementation of the major in Fall 2014. The following list outlines the implementation plan per grade level:

Students with Freshman, Sophomore, or Junior standing as of Fall 2014 would be allowed to change their major to a Public Health Major, per the UC Merced Change of Major Policy.

Students with Senior standing as of Fall 2014 will not be able to declare Public Health as a major.

Transfer students will not be allowed to enter the program until Fall 2016 or later, after we have worked with the Admissions, Academic Advising, and other UC Merced departments to determine how to set the criteria for transferring into UC Merced with a Public Health Major.

## APPENDIX A: Course description

### PH 001: Introduction to Public Health

Provides students with an introduction to Public Health, including i) scientific tools, ii) biomedical basis, iii) societal determinants of health, iv) environmental health, iv) role of the medical care system, v) population level interventions, vi) health communication and promotion, and vii) challenges facing Public Health.

### BIO 003: Molecular basis for health and disease

Introduction to the molecular basis of a number of human diseases and molecular-based therapies for disease treatment.

### MATH 018: Statistics for Scientific Data Analysis

Analytical and computational methods for statistical analysis of data. Descriptive statistics, graphical representations of data, correlation, regression, causation, experiment design, introductory probability, random variables, sampling distributions, inference and significance.

*Prerequisite: (MATH 005 or MATH 011 or MATH 021 or equivalent score on the math placement exam) and (MATH 015 or CSE 020 or CSE 005 or ENVE 105). Course cannot be taken for credit after successfully completing MATH 032. Normal Letter Grade only. Discussion included.*

### PSY 010: Analysis of Psychological Data

Design and analysis of psychological research including experimental design, correlational research, and descriptive and inferential statistics. Students in the Psychology major or minor must take this course before taking any upper division Psychology courses.

*Prerequisite: COGS 001 or PSY 001 Laboratory included.*

### PH 005: Global and International Public Health

Will provide an overview of the dynamic factors that produce global health challenges, including demographic changes, conflict, human rights abuses, migration, travel, food production and distribution, water resources, and market forces and economic factors. We will also examine their responsibilities towards global health as global citizens.

### PH 100: Introduction to epidemiology

Concentrates on the non-random distribution of disease in human populations and demonstrate how disparities in human culture and behavior are related differences in disease risk by characteristics person, place and time. Patterns of disease will be examine from the agent-host-environment paradigm.

*Prerequisite: Sophomore standing. Normal Letter Grade only.*

### PH 102: Health promotion and behavior

Health promotion is the process of enabling people to increase control over, and to improve, their health. This course provides students with an overview of the principles of

health promotion and various theories developed to change health behavior and promote the health of individuals and societies.

*Prerequisite:* [PH 001](#) or [PH 100](#) or [PH 102](#) or consent of instructor. *Normal Letter Grade only.*

PH 103: Health communication

Provides students with an introduction to the science and practice of health communication. The course will also describe the essentials for effective health communication and social marketing, reaching target audiences, developing and testing effective messages, and evaluating the impact of a communication campaign.

*Prerequisite:* [PH 001](#) or [PH 100](#) or [PH 102](#) or consent of instructor. *Normal Letter Grade only.*

PH 105: Introduction to the US Healthcare System

Overview of the US Health Care system. Topics include development and organization of US health system, challenges in California and US, how providers and funders work together, current problems, previous attempts to improve coverage and access to health care, and health care in other countries compared to the US.

*Prerequisite:* [PH 001](#) or [PH 100](#) or [PH 102](#) or consent of instructor. *Normal Letter Grade only.*

PH 110: Environmental Health

Provides an overview of the principles of Environmental Health with particular emphasis on the interaction between people and the environment, including recognizing, assessing and controlling the impacts of people in their environment while gauging the impacts of the environment on the public.

*Prerequisite:* [BIO 001](#) or [BIO 003](#) or [PH 001](#) or [PH 100](#) or [PH 105](#). *Normal Letter Grade only.*

PH 111: Research methods: Social epidemiology

Social epidemiology is the branch of epidemiology that explores how social forces affect human health and wellbeing. In particular it asks how social interactions, human activities, social conditions, social problems, and other social arrangements affect determinants of health and yield differential health outcomes. Social epidemiologists are concerned with determining the pathways through which social factors affect health, identifying disease-specific risk factors, and understanding health outcomes and risk factors are arrayed across different social conditions and social systems.

*Prerequisite:* [PH 001](#) or [PH 100](#) or [PH 105](#). *Normal Letter Grade only.*

PH 112: Research methods: Health services research

This course provides an introduction to research in the health services research and evaluation. The course will include both qualitative and quantitative research methods will be covered, using examples of research across a range of areas in health. Specifically, we will discuss the assumptions underlying research methods, the basic tools for conducting research, how to measure health outcomes, qualitative and



quantitative data collection methods and constructing questionnaires. The last part of the course focuses upon evaluation of health initiatives.

*Prerequisite:* [PH 001](#) or [PH 100](#) or [PH 105](#). *Normal Letter Grade only.*

PH 115: Research methods: GIS Mapping

Designed to provide students with an overview of the theory and application of Geographic Information Systems (GIS) with particular emphasis on Public Health.

*Prerequisite:* [PH 001](#) or [PH 100](#) or [PH 105](#). *Normal Letter Grade only.*

PH 108: Introduction to healthcare in the San Joaquin Valley

Provides an overview of the health care work force and current health care issues in the San Joaquin Valley. The course will be appropriate for students considering a career in health care delivery or related professions and for students with an interest in valley residents' health.

*Prerequisite:* [BIO 001](#) or [BIO 003](#) or [PH 001](#) or [PH 100](#) or [PH 105](#) and consent of instructor. *Normal Letter Grade only.*

PH 181: Public Health research

This course provides students with an opportunity for service learning via participation in research or an internship with a local health provider. Researchers at UC Merced as well as a number of public, non-profit and private health organizations in the Merced region have been invited to propose projects that require the type of knowledge and expertise students will have gained through their course of study. The students will work with the researcher or host organization to complete the project within the semester. Thus, the internships will benefit the participating organizations while simultaneously utilizing and expanding the skills of the student.

*Prerequisite:* [BIO 001](#) or [BIO 003](#) or [PH 001](#) or [PH 100](#) or [PH 105](#) and consent of instructor. *Normal Letter Grade only.*

PH 104: Health and the media

This course will cover the media's influence on health. Special attention will be paid to how health disparities are covered in the media, and the effects these portrayals might have on minority and majority populations. The course will also cover social media and health.

*Prerequisite:* [PH 001](#) or consent of instructor. *Normal Letter Grade only.*

PH 113: Latino and immigrant health

This course will focus on Latino health and the effects of immigration on health in the US. We will examine the effects of acculturation on health and shifts in behavioral outcomes between immigrant and second and third (and beyond) generations.

*Prerequisite:* [PH 001](#) or consent of instructor. *Normal Letter Grade only.*

PH 125: Emerging Public Health threats

A multidisciplinary study of the historical, sociological, medical, and biological issues underlying new Public Health threats and the scientific and policy-based approaches to responding to these new threats.

*Prerequisite:* [BIO 001](#) or [BIO 003](#) or [BIO 110](#) or [PH 001](#) or [PH 100](#) or [PH 105](#) or [PSY 124](#). *Normal Letter Grade only.*

PH 135: Public Health genetics

PH 137: Insects and Public Health

PSY 124: Health disparities

In this course, we will focus on the differential effect of environmental factors and behavior on human health. In our examination of the determinants of health, we will discuss issues related to ethnic, cultural, and gender psychology, risk behavior, behavioral medicine, psychosocial epidemiology, and policy.

*Prerequisite:* [PSY 015](#) or [COGS 105](#). *Normal Letter Grade only.*

PSY 147: Health psychology

Introduces students to a breadth of topics in health psychology, behavioral medicine, and Public Health. Particular emphasis is placed on the roles of psychological processes in altering physical and mental health, promoting well-being, preventing illness, and treating disease.

*Prerequisite:* [PSY 001](#). *Normal Letter Grade only.*

PH 185: Healthcare ethics

Designed to provide students with an overview of health and biomedical ethics. The class will discuss the key moral principles that drive ethical reasoning related to health care, with discussions focusing on ethical concerns encountered by practitioners and researchers in fields of clinical medicine and Public Health.

*Prerequisite:* [BIO 001](#) or [BIO 003](#) or [PH 001](#) or [PH 105](#) or consent of instructor. *Normal Letter Grade only.*

ANTH 120: Introduction to Medical Anthropology

Provides knowledge about medical anthropology, how different cultures understand human physiology and health, definitions of sickness, types of medical systems and practitioners, how cultural practices affect health, issues in gender environmental health, and how medical anthropology influences health policy.

*Prerequisite: [ANTH 001](#) or [ANTH 005](#). Normal Letter Grade only.*

#### ANTH 121: Ethnomedicine

Provides knowledge of medical systems cross culturally including the three ancient literary systems (Chinese, Ayurvedic, Greco-Arabic), shamanism, folk medicine, and biomedicine. Readings focus on the beliefs and organization of each system, types of practitioners, types of sicknesses treated, and how anthropologists research and understand these phenomena.

*Prerequisite: [ANTH 001](#) or [ANTH 120](#).*

#### BIO 010: Genetics, Stem Cells and Development

Issues associated with genes, stem cells and embryonic development increasingly impact our lives. Integrates an overview of biologic topics such as genetic testing, stem cells and the use of animal models with their bioethical considerations. It places science in the context of personal decisions and ethics.

#### BIO 060: Nutrition

Introduction to nutrition science that integrates basic concepts of nutrients, human physiology, microbiology, biochemistry, and the psychology of wellness.

#### BIO 140: Genetics

Includes concepts of inheritance, structure and function of genes and genomes, recombination, genetic mapping, gene regulation, mutations, and recombinant DNA technology including labs and discussions.

*Prerequisite: [BIO 002](#) and ([MATH 012](#) or [MATH 022](#), which may be taken concurrently) and ([MATH 018](#) or [MATH 032](#) or [ENVE 105](#) or [PSY 010](#), which may be taken concurrently) or equivalent course accepted by the Biology major. Normal Letter Grade only. Discussion included.*

#### BIO 161: Human Physiology

Understanding the mechanisms underlying function of major human organs. Emphasis includes neural transmission and action potential, cardiovascular, renal and gastrointestinal physiology, metabolism, and endocrinology. Laboratory experiments demonstrating and reinforcing topics covered in lecture with an emphasis on scientific method.

*Prerequisite: Senior standing and [BIO 101](#) and ([PHYS 009](#) or [PHYS 019](#)). Normal Letter Grade only. Laboratory included.*

#### ECON 145: Health Economics

An economic analysis of policies and institutions in the U.S. health care sector: supply and demand for health services, conceptual and policy issues relating to health insurance, and

economic analysis of efficient regulatory policies toward the health care sector.

*Prerequisite: [ECON 100](#) or MGMT 100.*

Medical Education Task Force  
Draft Charge

The Joint Senate-Administration Medical Education Task Force is an ad-hoc group established by the Chair of the Academic Senate and Provost/EVC.

It will convene in Spring 2014 to serve in an advisory capacity and to make a set of recommendations to the Academic Senate and the Chancellor regarding the future operation of the UC Merced San Joaquin Valley PRIME program and to provide an assessment of the feasibility of offering a Medical Education program on campus. Recognizing that development of a medical education program will have a large impact on the UC Merced campus and local area. It will consult broadly with campus academic and administrative units, and with the medical education and general communities.

**Task Force Charge**

1. Lead discussions with UC Davis regarding UC Merced faculty input into the San Joaquin Valley PRIME program and develop a proposal for involvement; identify opportunities for expanding the number of students involved in the PRIME program, as well as their understanding of Central Valley health challenges.
2. Complete a feasibility assessment of the UC Berkeley/UCSF Joint Medical Program and develop recommendations for establishing a medical education program modeled after it on campus. This should include considering variations based on existing faculty strengths on the UC Merced campus, as well as degree of overlap with partnering UCM academic or professional graduate programs, in terms of shared academic components and resources.
3. Identify, analyze and recommend potential faculty workloads, compensations, space needs, program budget impacts, funding resources, and regional partners associated with a medical program and its partnering academic or professional graduate programs.
4. Identify opportunities for collaboration, cooperation and synergy with other UCM graduate programs and within the medical education community.
5. Develop a final document with recommendations for the UC Merced Senate and the Chancellor that will describe the analyses and process, interpret key findings, and suggest recommendations.

**Proposed Membership:**

**Academic Senate**

HSRI Faculty Representative  
HSRI Faculty Representative  
HSRI Faculty Representative  
SSHA Faculty Representative  
SNS Faculty Representative  
SOE Faculty Representative

**Suggested Administration**

Vice Chancellor of Research and Economics  
Vice Chancellor: Student Affairs  
Vice Chancellor for Planning and Budget  
Vice Chancellor for Business and Administrative Services

Graduate Council Representative (as one of the three school reps)  
CAPRA Representative (as one of the three school reps)

**Quorum:**

A vote requires a balanced representation of the Senate and the Administration. A majority of members present at the meeting constitutes a quorum. In the absence of a quorum the task force may discuss business and vote on action items electronically.

**Reporting:**

As a joint Senate-Administration body, the task force shall report its recommendations to the Administration (through the Provost/EVC Office) and the Academic Senate (through the Chair of the Academic Senate) for dissemination to appropriate groups.

**Timetable and Reporting:**

March 17, 2014	Finalize charge and membership
April 25, 2014	SJV Prime proposal to Senate and Administration
May 16, 2014	Draft preliminary feasibility report/ "next steps" planning document to Senate and Administration
May 30, 2014	Final preliminary feasibility report/ "next steps" planning document to Senate and Administration

Date: Feb 1, 2014

To: Ignacio Lopez-Calvo

Re: Medical Education discussions: Agenda for Spring 2014

Dear Ignacio,

Thank you for participating in the discussions over the past several months regarding Medical Education at UC Merced. I thought it might be helpful to provide an overview of the current situation, HSRI's involvement with the Medical Education discussions, and the proposed next steps.

Though there has been a long history of discussions regarding medical education at UC Merced, HSRI's involvement began at the time of our initial charter (July of 2012). Noting the lack of engagement at the time, Chancellor Leland asked HSRI to take the lead in organizing our interactions with UC Davis and UCSF-Fresno on the SJV Prime Program and to facilitate discussions regarding the future of Medical Education on campus.

HSRI currently has 74 faculty members as members. In the ensuing 18 months, HSRI has worked with these faculty members to fulfill the Chancellor's request, including taking steps on two fronts: Integration of UC Merced faculty into the SJV Prime program, and identifying options for medical education in the future.

Below, I would summarize the current status of these efforts and our proposed next steps.

Sincerely,

Paul Brown  
Director Health Sciences Research Institute  
On behalf of the HSRI Executive

## Current situation

### Integration of UC Merced into the SJV Prime Program

In July of 2012, there was little or no involvement by UC Merced faculty in the SJV Prime program. Two faculty members (Jan Wallander and Rudy Ortiz) were representatives on the SJV Prime Board, but they were only peripherally involved with the SJV Prime students and UC Merced wider involvement. That task was left to David Hosley, Interim Vice Chancellor, Development and Alumni Relations. David was involved mainly because no faculty members nor the Senate were involved.

HSRI was asked by David and by UC Davis staff to help organize visits by the first year students and the incoming SJV students' visit to Merced and the San Joaquin Valley in late July. HSRI did organize these events, and they achieved their goal of exposing students to providers and the diverse populations in the SJV. However, those involved with the events felt that the students' experiences were somewhat limited (referred to by one faculty member as a 'drive by' visit to the SJV) with little involvement of UC Merced Faculty.

In order to increase our presence with the SJV Prime students and UC Merced's contribution to the SJV Prime program, HSRI held a series of discussions with UC Davis on ways to increase our involvement. As a result of these discussions, we identified 30 faculty members who were willing to travel to Davis to participate in a seminar on topics relevant to the SJV and UC Merced. We also offered to revamp the summer visits to make them more meaningful for the students and the faculty. However, in the end, none of the offers were acted upon by UC Davis, and they announced in early 2013 that the students would no longer have the SJV valley visits.

With regards to the year 3 and 4 students currently at UCSF-Fresno, UC Davis asked whether UC Merced would be able to provide a year-long course of study for interested 4th year SJV Prime students. We indicated that this was possible. UC Davis has also asked whether UC Merced faculty would be willing to teach research modules to SJV Prime students. At the current time, the details of such a program, including the compensation that UC Merced faculty would receive for teaching these courses, has not been described.

*Assessment of current situation:* The situation as it stands now is that SJV Prime students spend two years at UC Davis with little or no interaction with UC Merced faculty. At the present time, none of the 3rd year students currently at UCSF-Fresno have expressed an interest in taking a year to study at UC Merced, meaning that we have little or no interaction with these students. The lack of integration is partly reflective of the fact that medical students have very tightly controlled schedules and so there is limited flexibility for greater involvement of UC Merced faculty. The tight schedule, as well as funding limitations, means that it is unclear how UC Merced faculty will be more involved in the future.



### **Options for medical education**

Since UC Merced's inception, there have been proposals to start a Medical School. These initial discussions were not altogether fruitful, and left a bitter taste with many faculty members regarding the potential for UC Merced to have a medical education program. Among the concerns/comments were:

- The campus is too new to develop a Medical School;
- Medical Education will divert resources away from other areas;
- It will stretch our already over-committed biomedical faculty;
- The cost will be exorbitant;
- The program will struggle to meet the specific needs of the region;
- The potential regional partners are not prepared to host clinical training.

The option that had originally been proposed (Medical School with a distributed model of clinical training) had not found much support among faculty and, as a result, the topic had languished. HSRI therefore sought to restart the discussions from scratch by bringing together any and all faculty who were interested to explore various models of Medical Education.

Over the past months, HSRI has:

- Led discussions of the future of Medical Education with regional partners, including UCSF-Fresno, Mercy Hospital, Children's Hospital, regional and state medical associations, and other universities in the region.
- Held a Medical Education forum in which representatives from UC Berkeley, UCSF, UC Davis, and the Office of the President met with UC Merced faculty to discuss options for Medical Education,
- Developed a report and recommendations summarizing the options for Medical Education at UC Merced that was subsequently presented to and discussed with the Provost and the Chancellor, and
- Developed a plan for continuing our development of Medical Education at UC Merced.

Our goal was not to provide a definitive statement on the option that would be best for UC Merced (that is the purview of the Senate), but rather to provide an expert assessment of the pros and cons of various models. This was seen as the first stage in the process of deciding whether or not to pursue a medical program, with the complete list being:

- Stage 1 - Review pros and cons of various models of medical education (2013)
- Stage 2 - Conduct an Academic Feasibility study for one or more of the models identified in Stage 1(2014)
- Stage 3 - If the decision was made to explore one of the options, conduct a Financial Feasibility study and a detailed assessment/development of the program, including working with regional partners to identify whether there are the appropriate clinical inputs (2015).

*HSRI recommendations regarding Medical Education:*

All members of HSRI and the three Deans were invited to participate in Stage 1 (no interested parties was turned away, and we actively canvassed senior faculty members). The Medical Education Forum was a day-long meeting in June 2013 to discuss options for medical education, the development of a consensus summary report that was presented to the Chancellor and Provost in July 2013, and a face-to-face meeting to discuss the results with the Chancellor and Provost in August 2013.

As described in the report to the Chancellor (Medical Education Summary July 2013), four options were considered:

- Continue or expand the SJV Prime program,
- Modify the SJV Prime program to have UC Merced provide the first two years of medical education using the UC Davis curriculum,
- Adopt the Joint Medical Program (JMP) model of UCSF/UC Berkeley, or
- Defer decision regarding Medical Education till a later date.

The pros and cons of each model are described in the report, but the overall recommendation to the Chancellor was that the JMP model held the greatest promise, and that UC Merced should consider this alternative only during Stage 2.

After much consultation and consideration of alternative models, a group of faculty consisting of representatives from all three schools recommended that UC Merced pursue a model similar to the UC Berkeley/UCSF Joint Medical Program (Summary of JMP Nov 13) in partnership with UCSF-Fresno. The UC Merced-UCSF-Fresno model might involve students spending three years at UC Merced, completing case-based or problem-based learning sessions led by UC Merced faculty and selected people from the region and initial clinical training at Mercy Hospital and/or Golden Valley Health Centers. Students would emerge with a Master of Science in either Public Health or Biomedicine, and then complete their clinical training at UCSF-Fresno. The advantages of the model include:

- *Relatively low cost and quick start-up* - The case based approach does not involve a significant investment in laboratory facilities and the entire program could be housed on a floor of a building. It could be up and running within 5 years.
- *High probability of success* - This model is already in existence within the UC system (UCSF/UC Berkeley), UCSF-Fresno is already providing medical training and has the patient base to expand its medical training program, and regional health providers (particularly Mercy Hospital and Golden Valley Health Centers) would be appropriate for the initial clinical training. UCSF-Fresno can coordinate the provision of the anatomy lab. UC Berkeley has been very supportive and is eager to help us adapt their model for our use.
- *Takes advantage of our current faculty* - The case based learning model is perfect for our faculty as it works best when different backgrounds and perspectives are represented; moreover, it does not require physician instructors.
- *Would be unique in the world* - The case based learning model could be developed by us to provide health professionals specifically with training in working with diverse (e.g.,

culture, ethnicity, language) disadvantaged communities in rural areas, such as the SJV. Training specifically for work with culturally/ethnically diverse populations at the start and throughout medical school, rather than as a secondary add-on to pre-existing programs, would be unique in the country. Thus UC Merced would be able to offer a program that would be recognized around the world as a leader in training health professionals to provide appropriate care to disadvantaged and diverse peoples and communities in the U.S.

A key question that was considered in making this recommendation was "*Why now?*" There were several reasons why it was decided that this was the appropriate time to move forward with medical education: maturation of UC Merced as a campus, closer ties between UC Merced and UCSF-Fresno, critical mass of health research on campus, and change of attitudes among UC Merced faculty. However, one reason that cannot be ignored is the views and expectations of UC Merced supporters and the broader community around us. Many have long advocated for us to move forward with Medical Education, and many are frustrated with the lack of progress. This includes the groups that would be our partners and financial backers in this venture. A decision to move forward does not commit us to action, and there are many factors that would have to fall in place for Medical Education to become a reality, Yet the alternative of delaying this decision would ultimately be a decision to kill the idea for a long time.

*Assessment of current situation:* HSRI has conducted an initial inquiry into the JMP (see Appendix B). However, because HSRI is not a Bylaw 55 Unit, the ownership and administrative structure of the program would eventually require the three schools. Thus, while HSRI is happy to continue acting on behalf of the faculty, the involvement of DIVCO and the Senate is key to ensuring that the decisions are in the best interest of UC Merced.

## **Proposed next steps**

We would recommend the following:

### **SJV Prime program**

HSRI will (at the Senate's bequest) lead discussions with UC Davis regarding UC Merced faculty input into the SJV Prime program. This will likely entail the following steps:

- Meet with Fred Meyers/UC Davis and UCSF-Fresno staff to identify the amount of leeway in their program for our involvement (Feb 5th)
- Work with UC Merced staff to develop proposal for involvement, including remuneration that would be required for UC Merced staff to participate (Mid Feb to Mid March)
- Present plan to DIVCO (Mid March)
- Send recommendations to Provost and Chancellor (end of March)
- Discuss final proposal with Fred Meyers (End of March)

### **Medical Education discussions (complete Stage 2)**

HSRI will (at the Senate's bequest) lead a group that will do an academic feasibility assessment of the UC Berkeley/UCSF Joint Medical Program. This will likely entail the following steps:

- Identify members of the group, including the faculty members who have been involved to date and other nominations from DIVCO
- Discuss JMP with Joan Voris and Mike Peterson from UCSF-Fresno, inviting them to join us in the discussions (Week of Feb 3<sup>rd</sup>)
- Contact and update Cathryn Nation from UCOP about our activities (Week of Feb 3<sup>rd</sup>)
- Arrange and conduct meeting with members of UC Berkeley, including (schedule for late February/early March)
  - Director of the JMP program
  - Dean of School of Public Health
- Arrange and conduct meeting with representative from UCSF (schedule for late February/early March)
- Meet with DIVCO and Provost/Chancellor Leland to review our findings to date (late March)
- Meet with representatives from providers in the region who are likely to be involved should a program be developed (e.g., Mercy Hospital, Children's Hospital, Golden Valley) (Early April)
- Develop recommendations and report to DIVCO
- Send recommendations to Provost and Chancellor

## Summary Points from June 17th Medical Education Discussions

July 12, 2013

### Summary developed with input from:

Jan Wallander, Rudy Ortez, Linda Cameron, Peggy O'Day, Ariel Escobar, Mike Dawson, Steve Roussos, Paul Brown, Derry Ridgway

### Overview:

Over the past year, HSRI (at the Chancellor's request) has been working to coordinate UC Merced's involvement with the SJV Prime Program and discussions regarding the future of Medical Education on campus. The purpose of the Medical Education day on June 17th was to help Faculty understand the advantages and disadvantages of options for Undergraduate Medical Education (i.e., the typical basic medical school program, hereafter referred to as just Medical Education in this document) at UC Merced. The discussions did not address the question of whether having Medical Education program would be beneficial to UC Merced or whether it is feasible to provide Medical Education on campus (questions best left to Senate and the Administration), but rather to provide some expert advice regarding the options for Medical Education should the decision be made to pursue further discussions.

The list of attendees of the June 17th meeting (included at the end of this document) included representatives from UC Davis, UC Berkeley, UCSF, and UCSF Fresno. The discussion centered on the three models of Medical Education:

- SJV Prime Program model of Medical Education
- UC Davis's model of Medical Education
- UC Berkeley/UCSF Joint Medical Program (JMP)

The discussion focused on the needs of the region and the extent to which a Medical Education could serve the needs of the community.

As a way of summarizing the impressions from the day, we have provided the following:

- Summary of the needs of the community with regards to Medical Education
- Advantages and disadvantages of four options:
  1. Continuing with the SJV Prime Program
  2. Transferring and expanding the SJV Prime Program by having students receive 2 years of training at UC Merced in the UC Davis's model and then their last two years at UCSF Fresno,
  3. Adopting the Berkeley model by having students receive 2 or 3 years of training at UC Merced in the UC Berkeley model and then their last two years at UCSF Fresno,
  4. Defer decision regarding Medical Education at UC Merced

It should be noted that none of the models under consideration involve UC Merced being the LCME accredited institution. While this might be considered at some point in the future, the models discussed all involve either UC Davis or UCSF being the degree granting institution.

## **Summary of the needs of the community with regards to Medical Education**

The discussion made clear that there is a long-term shortage of physicians in the region and the community in the SJV sees a medical school as an important component to closing this gap. There was debate as to whether having a Medical Education program was indeed the best way to achieve the aim of getting more physicians in the region, with the discussion touching on other ways of getting more qualified physicians to remain in the region, including:

1. Better training for high school students to make them competitive at University, in particular a pre-med curriculum,
2. Better training for UC Merced students, making them more competitive for medical school,
3. Having a Medical Education program in the SJV,
4. Increasing the number and variety of physician residency programs in the SJV
5. Improving the experience for medical residents practicing in the SJV so that they want to stay after completing their residency.

While these are related, UC Merced could (in theory) choose to address any these without dealing with the others. For instance, UC Merced might choose to focus on introducing programs to enhance the residency experience (4) by working with existing residency programs (UCSF Fresno, but also Sutter Gould in Modesto and others around the region) without having a Medical Education program on campus. Many in the region are focused on the notion that doctors settle within a short distance of the place where they do their residency, suggesting that enhancing the residency experience may lead more physicians to stay in the region. The meeting participants pointed out that in addition to the site of residency training, other factors are important as well, including where they grew up, where they attended medical school, where they performed internship/residency, and spousal preference. However, it was recognized that these aspects (1 to 4) are interlinked (i.e., can you enhance the residency experience without having a Medical Education program on site?), and no consensus was researched whether focusing on the components individually would be successful.

There was also discussion regarding whether having a Medical Education program was the most effective way to improve the health of the community. It was pointed out that many of the problems in the region would be best addressed by having a Public Health School at UC Merced rather than focusing on producing more physicians. Public health is the field within the health sciences and professions that is better equipped to address the determinants of health and health care. But the consensus was that while this is an important consideration, the point of the discussion was to discuss models of medical education at UC Merced.

## **Strengths and weaknesses of models of Medical Education**

### **1. Continuing with the SJV Prime Program**

#### **Overview**

The current SJV Prime program is run by UC Davis, with students spending their first two years at Davis and then their final two years (clerkship) at UCSF Fresno. UC Merced's involvement with the program is minimal, being confined to presenting occasionally at a one-hour lunch time seminar, and two representatives (Wallander and Ortez) serving on the Advisory Board and interviewing some of the applicants.

The SJV Prime curriculum during the first two years is almost identical to the non-SJV Prime students. SJV Prime students have a one hour lunch-time seminar each week, shared with the other UC Davis rural prime program. In previous years, the SJV Prime cohorts visited UC Merced and toured several SJV medical sites as part of their orientation, though this activity was removed from the program for the current (third) class of students. Presenters from UC Davis pointed out that the geographic separation of the Davis and Merced campuses made any cooperative experience difficult. The consensus was that there is currently little or no active role for UC Merced in the education of the SJV Prime students. Presenters from UC Davis did suggest some other ways that UC Merced faculty might be involved, but these were mainly peripheral to the Medical Education curriculum.

The first group of 5 SJV Prime students have begun their final two clerkship years at UCSF Fresno. Because UC Davis remains the granter of the degree, the training at UCSF Fresno must be consistent with UC Davis' accreditation. This has apparently led to some friction between the campuses, but appears to have been resolved for the first SJV Prime Class. UC Merced has been asked by UC Davis whether SJV Prime students might have the option of completing a one-year Masters in Public Health at UC Merced. Because we are planning on having a Public Health masters program in Fall 2014, UC Merced could accommodate these students. However, conversations with the current SJV Prime students suggests that interest might be low due to it delaying their graduation by a year and adding to the costs of their medical education. Interest in a year of public health training and masters degree may increase as the first SJV Prime cohort gets more exposure to health concerns in the valley, and may depend on the university's ability to provide financial support.

Finally, Fred Meyers was asked about the potential to expand the program and get more UC Merced involvement. He stated that:

- The number of students could increase to 8 to 10 per year
- There were other options for involving UC Merced, such as having a summer program, but that would have to be paid for by UC Merced and it was not clear how much interest there would be from students, and



- The estimated cost per SJV Prime student to UC Merced is between \$10,000 and \$15,000, although the breakdown of how much of this covers the UCSF Fresno training and how much it covers the UC Davis training was unclear.

In summary, except for the open question of a year of public health study and research on our campus for the SJV Prime students, there does not appear to be a major role for UC Merced to play in the UCSF Fresno component of the SJV Prime Program.

<b>Advantages</b>	<b>Disadvantages</b>
1. Part of an established, accredited Medical Education program resulting in relatively low cost	1. Minimal role for UC Merced, with little to no hope of influencing the course of study to emphasize the unique nature of the SJV
2. Selection process might result in medical students who are likely to want to stay in the SJV	2. Quality of students appears to vary and suggest that students appear to require substantial academic support to succeed
3. Attachment of UC Merced name, for minimal efforts and moderate cost, may modulate community expectations.	3. The basic Medical Education program on which this is placed uses an approach to training that has been shown to be less optimal for preparing physicians of the future and/or to be most effective in preparing them to deal with the local conditions.
4. Makes use of resources at UCSF-Fresno.	4. Continuing the program depends upon the continued cooperation and good will between UCSF Fresno and UC Davis
5. This choice is the default, meaning no action required. If we acknowledge and accept our non-participation in SJV Prime education, then the demands made on us are modest.	5. If the location of medical school contributes to the practice location decision of newly trained physicians, then the 2 years at UCD (not in the SJV) may blunt the intended plan to ‘raise and train locally’ as an approach to keeping physicians in the valley.
6. If we offer and promote the 5th year of Public Health, we will be helping to fulfill our goal of providing SJV students with an understanding of the health needs of the region.	6. Current student interest in taking up the Public Health program seems limited unless we can fully fund their study.
	7. The size of the class (at most 8 to 10) is too small to make a noticeable difference to the health of the region.

## **2. Transferring and Expanding the SJV Prime Program by having students receive 2 years of training at UC Merced in the UC Davis's model and then their last two years at UCSF Fresno**

### **Overview**

A second option that was discussed was for UC Merced to wholly adopt the UC Davis model:

- UC Davis remain the accrediting university
- UC Merced offering the first two years of medical education using the curriculum from UC Davis, and
- Students doing their final two (or three, if a Public Health year is offered) at UCSF Fresno

This would be an expansion of the current model, and the number of students could (potentially) expand from the 8 to 10 maximum under option 1 to that of a normal medical education program.

The UC Davis pre-clinical curriculum is a traditional block model, with approximately half of faculty contact time spent in a large class lecture setting (estimate from the UC Davis faculty presenters). Some of the class blocks are organ oriented (for example, renal physiology + renal and urologic pathology + fluid management) while others are subject-matter specific (for example, microbiology). Some classes are offered in an electronic access format; a UC Davis SJV Prime student presenter's current schedule included one such class taken entirely 'on line'. Small discussion group sessions with faculty represent a small part of the basic science curriculum; problem based learning is not an important part of the Davis approach. During the 2 pre-clinical years at Davis, students are also exposed to clinical medicine and patient contact in a variety of settings; for the SJV Prime students, these settings have focused on underserved populations.

Beginning with the third SJV Prime cohort, clinical exposure for SJV Prime students will include clinics in the San Joaquin Valley (Modesto and perhaps Stockton). The block curricular model is the most common model used in American medical schools. The model is easily adapted to preparing students for the USMLE Step 1 exam and takes advantage of the specialty organization of university faculty (so, for example, microbiology is taught by microbiologists). The Step 1 exam is the single biggest graduation impediment for matriculating medical students; in this setting, teaching to the test has a strong appeal. Several medical schools, including schools in the UC system, have revised their curriculum during the past 2 decades to new models that put greater emphasis on small group interaction. Professor Irby pointed out that for schools like UCSF, the choice of curriculum and quality of teaching may be important for the faculty and may have an important influence on the satisfaction (happiness) of the medical students, but seem to have little effect on the knowledge transferred, according to test results or other formal assessments of student performance.

In summary, this option would expand on the existing program by having the first two years of UC Davis training done at UC Merced.

<b>Advantages</b>	<b>Disadvantages</b>
1. UC Merced would have a Medical Education program located on campus, not just a symbolic program	1. Because of the nature of the Davis program, a major resource allocation will be necessary, especially in the areas of biomedical research and teaching.
2. The number of medical students could expand beyond the 8 to 10 limit under the current arrangement. This might help fill the gap in the region	2. Requires that UC Davis remain willing to be the accrediting program for students who never set foot on the Davis campus. Expect there to be major concerns and negotiations regarding the transfer of pre-clinical class credits.
3. It would continue to take advantage of the resources available at UCSF Fresno	3. The block curriculum is seen as somewhat outdated and not innovative. There is a chance that UC Davis will look to change their curriculum in the near future, meaning that UC Merced would need to change ours as well.
4. The traditional block model is relatively inexpensive to deliver to students since much of the instruction is in-class lectures.	4. Changing to another model, such as having UCSF be the degree granting institution, would be very difficult once we have adopted the Davis program
	5. One meeting presenter reminded us that when UC Riverside established its medical school partnership with UCLA, an admissions policy that gave preference to local students resulted in complaints about sub-standard student outcome. Classes included cohorts of students with strong local ties and cohorts of high-performing students and very little overlap.

### **3. Adopting the Berkeley model by having students receive 2 or 3 years of training at UC Merced in the UC Berkeley model and then their last two years at UCSF Fresno,**

#### **Overview**

A third option that was discussed was adopting a program such as UC Berkeley's Medical Education model. The basics of this model are:

- UCSF is the degree granting institution, with joint control over admissions
- Students spend 3 years at Berkeley, coming out with an Masters of Public Health as well as their first two years of medical education
- Students spend the final two years at UCSF (or UCSF Fresno) as other students.

UC Berkeley created the preclinical medical program (the Joint Medical Program, JMP) 40+ years ago, in association with the UCSF School of Medicine. The program is now run out of the School of Public Health and extends over 3 years. After successful completion of the 3 years at Cal and 2 years of clinical training at UCSF, graduates receive an MD and MS (Public Health) degree. Since about 10 years ago, the medical curriculum is entirely Problem Based Learning (PBL). The PBL preclinical training and the course work and research for the master degree run concurrently. Two MD clinician SPH faculty oversee the PBL program ( 1.5 FTE). The UC Berkeley PBL curriculum consists of a series of defined clinical scenarios (problems) presented step-wise to student groups of 6 students in a series of 2.5h meetings (3 per week). Problem presentation is under the control of a preceptor who attends the meetings as a reasoning facilitator (called a process expert), but not as a knowledge resource. Based on the problem, students identify topics and questions that require research and, between meetings, prepare written learning objects and present their research findings at the next meeting.

The Joint Medical Program at UC Berkeley uses 14 core faculty from the School of Public Health and other campus disciplines, and in addition employs 60 or more tutors drawn from the community. While small group preceptors are not required to be clinicians or to have medical training, they do require orientation to the problem-solving preceptorship role. Preceptors change with each problem and problems are reviewed over the course of 2 weeks. Presenters from UC Berkeley provided several lines of evidence that the Joint Medical Program students meet or exceed national standards for preclinical education. Review of the student learning objects shows that the majority of topics covered by the Step 1 exam are addressed on multiple occasions by each study group.

In summary, this option would adopt the UC Berkeley/UCSF model by having the first two/three years of UCSF training done at UC Merced using the UC Berkeley model, and then have the last two years at UCSF Fresno.

<b>Advantages</b>	<b>Disadvantages</b>
1. UC Merced would have a Medical Education program located on campus, not just a symbolic program	1. Still requires significant resources
2. The number of medical students could expand beyond the 8 to 10 limit under the current arrangement. This might help fill the gap in the region	2. While the JPM program is highly respected and could be adopted, it is unknown whether UC Merced could obtain the same level of academic quality and respect
3. It would continue to take advantage of the resources available at UCSF Fresno	3. To keep costs down, it would require current faculty to divert some time away from other needs to meet this need.
4. Can be started small and is easy to scale up, requiring somewhat fewer immediate resources	4. It is unclear whether the UC Berkeley student success is due to the program or to the quality of students they enroll. If the latter, then it is unclear whether UC Merced can attract the same quality of students. However, if the MD degree comes from UCSF, then it is likely we will attract quality applicants.
5. Model is touted to be good for preparing physicians of the future	5. While some UC Merced faculty may embrace the innovative aspect of a JMP-like PBL curriculum, others are likely to object that in a new school struggling to achieve academic distinction during a period of constrained resources, the gamble on a highly innovative curriculum that relinquishes faculty control takes on too much risk.
6. The additional 1-year curriculum can develop competencies to address health needs of SJV better	
7. UC Berkeley's program is portable, meaning we could conceivably adopt the same sequence of problems with some adaptation to the SJV. The Joint Medical Program has recently sold its program to another institution. If UC Merced adopted the same PBL curriculum as the JMP, our students would have training that is familiar to the UCSF clinical faculty.	

8. Using the JMP as our model, we could incorporate the 5th year (as a 3-year preclinical program on the UC Merced campus), copying a successful, experienced, and highly respected program.	
9. Assuming faculty and administrative commitment to the teaching FTE requirements, instituting a PBL program could occur without the hiring of large numbers of clinical faculty.	

#### 4. Defer decision regarding Medical Education at UC Merced

##### Overview

At present, UC Merced has no formal program for undergraduates interested in applying for medical education, no meaningful involvement with the SJV Prime Program, and no program to assist residents in the region. We could defer the decision till a later date.

In a post-meeting communication, Dr. Peterson reminded us that a private, for-profit health education effort in Fresno may be able (eager) to fill the void if UC Merced elects not to support a substantial medical education effort. This sequence would substitute a credentialing MD program for the knowledge-advancing medical science campus that would result.

<b>Advantages</b>	<b>Disadvantages</b>
1. Avoid risks and resource needs associated with starting a new educational program.	1. UC Merced is seen as ignoring the health needs and clear demands of the region
2. If UC Merced can continue to attract resources and funding, then these resources might be used for other purposes.	2. Limits our ability to attract resources. Status in community and is jeopardized and political capital disappears
3. Allows UC Merced to consider other models of medical education	3. Delaying may mean that UC Merced never has a medical education program.
4. Would allow UC Merced to place more efforts on developing a School of Public Health in order to meet the needs of the region.	4. The presence of a medical program on a university campus makes the school more attractive to undergraduate applicants, sweetening the pool of candidate undergraduate students.

**List of attendees:**

Tom Peterson	UC Merced
Dan Hirleman	UC Merced
Mike Peterson	UCSF – Fresno
Joan Voris	UCSF – Fresno
David Irby	UCSF
Ann Stevens	UC Berkeley
Cathryn Nation	UC Office of the President
Tonya Fancher	UC Davis
Kenny Banh	UCSF – Fresno
Fabian Alberto	SJV Prime
Paty Gonzales	UC Davis
Fred Meyers	UC Davis
Amin Azzam	UC Berkeley
Michael Dawson	UC Merced
Stergios Roussos	UC Merced
Erin Gaab	UC Merced
Paul Brown	UC Merced
Peggy O’Day	UC Merced
Jan Wallander	UC Merced
Ariel Escobar	UC Merced
Linda Cameron	UC Merced
Derry Ridgway	UC Merced



Medical Education  
 Discussion of 21<sup>st</sup> Century Medical Curricula at the  
 Northern campuses of the University of California

June 17, 2013  
 Half Dome Room, SSM Building, UC Merced

Meeting objectives: Provide an opportunity for interested UC Merced faculty members from the Schools of Engineering, Natural Science, and Social Science, Humanities, and Arts to learn about 21st century approaches to medical school curricula.

Provide a forum for discussion about possible academic and practical implications of a medical education program on the UC Merced campus.

9:45-10:00 am	Coffee and pastries
10:00-10:15 am	Welcome and Introduction of Program – UC Merced and HSRI
10:15-11:45 am	<p>Presentation about UC Health Care Programs. Cathryn Nation</p> <p>Discussion of the findings and recommendations from the Carnegie Foundation’s 2010 report [Cooke, Irby, O’Brien. <u>Educating Physicians: A Call for Reform of Medical School and Residency</u>]. All attendees, discussion led by David Irby</p>
11:45-12:10	Break; buffet for working lunch
12:10-1:00 pm	<p><u>UC Davis</u></p> <p>Presentation: The Medical Curriculum at UC Davis</p> <p>Presentation: The Preclinical curriculum for students in the San Joaquin Valley Prime Program</p> <p>Presentations by Tonya Fancher, Fred Meyers, and Paty Gonzales.</p> <p>Presentation by Fabian Alberto.</p> <p>Discussion</p>
1:00-1:50 pm	<p><u>UC Berkeley School of Public Health – Joint Medical Program</u></p> <p>Presentation: The Preclinical curriculum of the JMP</p> <p>Presentation by Amin Azzam and Ann Stevens</p> <p>Discussion</p>
1:50-2:05	Break
2:-05-3:00 pm	<p><u>UCSF-Fresno</u></p> <p>Presentation: The clinical curriculum at UCSF-F</p> <p>Presentation: The clinical curriculum for students in the San Joaquin Valley Prime Program</p> <p>Presentation by Michael Peterson, Kenny Banh, and Joan Voris</p> <p>Discussion</p> <p>Thanks and Conclusion. UC Merced and HSRI</p>

## **Academic Senate-Administration Library Working Group Final Report**

The Academic Senate-Administration Library Working Group (LWG) met three times during the 2013 Fall Semester to address the items in its charge. In addition, the LWG solicited comments from stakeholders from the faculty, student body, and administration.

The LWG reached consensus on two matters. First, the library is an academic unit and the library budget needs to grow significantly in order to reflect past growth at UC Merced and to keep pace with continued growth. The current budget is not adequate to meet the diverse requirements for print and digital information and scholarly communication at a research university, nor to address inflation in scholarly information costs. Second, the LWG strongly supports the creation of a permanent Library and Scholarly Information Advisory Committee with a membership and charge akin to such committees at other UC campuses (see Appendix A). The Library and Scholarly Information Advisory Committee should be charged with addressing the major library issues and potential directions that the LWG surfaced, which include:

### **Budget**

- How, and how much, to grow the library budget and staff to support all areas of activity as the campus adds faculty, students, and new programs.
- Potential budget impacts of open-access publishing, cost inflation of scholarly information, and changing models for acquiring and accessing information.

### **Space and Infrastructure**

- Library public spaces are being used at maximum capacity.
- Space for printed books. There is sufficient stack space to get to 2020, but space needs for 2030 and beyond are uncertain.
- There is not enough space for physical non-book materials to get to 2020, such as manuscripts, university archives, art work, and realia.
- There is a need for digital labs and workspaces, staff and network/hardware infrastructure for digital collaboration and for activities such as data curation. Campus core facilities with missions synergistic to the library (e.g. digital humanities, spatial analysis) could be located in the library.
- Possible solutions include (re)claiming space in Kolligian Library Building or creating library common spaces in new buildings.

### **Non-Commodity Information**

- Non-commodity information is any campus-generated information (physical or digital) for which the campus or individual researchers retain or are granted usage rights.
- Assist researchers in handling non-commodity content through the entire lifecycle of collection, digitization, design, analysis, sharing, discovery, and archiving.

- Management of digital and physical non-commodity information produced as the result of research, instruction, or campus initiatives to digitize and/or preserve non-university information.

### **Educational Role**

- Develop research-ready students (undergraduate and graduate) who have the skills to discover, access, evaluate, and apply information throughout their scholarly, professional, civic, and personal lives.
- Identify and acquire core print and digital collections that are adequate and systematic in coverage and appropriate to student learning and research in all disciplines and at all levels from general education through Ph.D.
- Respond to newly enhanced WASC requirements for information-literacy outcomes and provide in-person and online information-literacy instruction.
- Provide library support for online courses as they emerge.

### **Research Role**

- Support campus research by developing mechanisms to identify collection needs and by providing access to adequate and comprehensive print and digital resources appropriate to all disciplines at the university, as well as aiding in managing the non-commodity information (data, print, other formats) produced by university researchers.
- The growth of the library staff should reflect the expertise needed to support faculty and student research and publication in all forms and disciplines.
- The library itself could be studied by researchers interested in organizational management, economics, educational outcomes, etc.
- The library should be a partner in research projects that would benefit from librarian input and expertise.

### **Library and Scholarly Communication Advisory Committee**

We propose the establishment of a Senate standing committee, the Library and Scholarly Communication Advisory Committee (LSCAC). We believe that a free-standing LSCAC will best meet the needs of the campus, since the issues that such a committee will address are unique to this domain, and since the ex officio membership of this committee will not overlap with that of other standing committees. However, if it proves difficult to staff a free-standing LSCAC, we note that it would be feasible to make the LSCAC charge a part of the Committee on Research charge (as at UC Irvine, see Appendix A), presumably with the LSCAC a semi-autonomous subcommittee of CoR. We note further that LSCAC will generally need to meet only once or twice per semester.

The LSCAC will, of course, aid the library by serving as a two-way conduit for mutual exchanges of information and ideas between the library and its stakeholders. In keeping with such committees on other UC campuses, the committee will advise the Chancellor regarding administration of the Library, and, in accordance with the

Standing Orders of the Regents, advise the University Librarian regarding acquisition, storage and provision of library holdings; and to perform such other duties relative to the Library as may be committed to the Senate by proper authority. The committee will participate with the University Librarian in matters relating to the library budget, the formulation of library policies, the allocation of space, and the apportionment of funds; and will prepare and submit to the Division an annual report on financial problems, allocation of space, facilities for research, and any other matters within its jurisdiction. The LSCAC will also advise the library on matters of importance to the university community, and will liaise with the CIO on matters related to research computing. Finally, the LSCAC will study and report on issues of scholarly communication, including technology, publishing, teaching, archiving, and copyright. The LSCAC promotes education and advocacy for matters concerning the library and scholarly communication.

The proposed membership of the LSCAC is as follows:

- Faculty member representing the Academic Senate Committee on Research
- Faculty member representing School of Social Sciences, Humanities, and Arts
- Faculty member representing School of Natural Sciences
- Faculty member representing School of Engineering
- Librarian representing the Librarians Association of the University of California—Merced Division
- University Librarian (ex officio)
- Vice Chancellor for Research (ex officio)
- Chief Information Officer (ex officio)
- Representative of the Graduate Student Association
- Representative of the Associated Students of the University of California, Merced
- Vice Provost and Dean of Undergraduate Education (ex officio)

## APPENDIX A

### University of California Library Advisory Structures

<p><b>UC Berkeley</b></p> <p style="text-align: center;"><b>Library Committee</b></p> <p><b>Membership:</b> This Committee has two student members (one graduate, one undergraduate); number of Senate members not specified. 2013-2014 Library Committee has 11 faculty members plus University Librarian “by invitation.”</p> <p><b>Charge:</b></p> <ul style="list-style-type: none"><li>• Advises the Chancellor regarding administration of the Library; and</li><li>• Performs such other duties relative to the Library as may be committed to the Division.</li></ul> <p><a href="http://academic-senate.berkeley.edu/committees/libr">http://academic-senate.berkeley.edu/committees/libr</a></p>
<p><b>UC Davis</b></p> <p style="text-align: center;"><b>Library Committee</b></p> <p><b>Membership:</b> This committee shall consist of at least ten members, including the following: one undergraduate student representative; one graduate student representative; one representative appointed by the Davis Academic Federation; the chair of the library committee of each college or school having a library committee on the Davis campus; a faculty member from each college or school on the Davis campus that does not have a library committee but does have a committee with responsibility for library matters; and the University Librarian of the Davis campus ex-officio. (Am. 3/16/92; 10/20/97)</p> <p><b>Charge:</b> It shall be the duty of this committee to advise the Chief Campus Officer regarding the administration of the Library on the Davis campus, in accordance with the Standing Orders of the Regents, to advise the University Librarian regarding removal and storage of library holdings, and to perform such other duties relative to the Library as may be committed to the Senate by proper authority. The committee shall report at least once a year to the Representative Assembly. (Am. 6/10/93; effective 1/1/94)</p> <p><a href="http://academicsenate.ucdavis.edu/committees/committee-list/library.cfm">http://academicsenate.ucdavis.edu/committees/committee-list/library.cfm</a></p>
<p><b>UC Irvine</b></p> <p style="text-align: center;"><b>Council on Research Computing and Libraries</b></p> <p><b>Membership:</b> The Council on Research, Computing, and Libraries shall consist of at least one member</p>

from each Faculty and no more than one member from any academic department. To balance the responsibilities of service among the members, each of the following Faculties shall have the following number of members:

- 1) Biological Sciences (2 members), Health Sciences (2 members);
- 2) Physical Sciences (2 members), Engineering (2 members), ICS (1 member);
- 3) The Arts (1 member), Humanities (2 members); Education (1 member); and
- 4) Social Sciences (2 members), Social Ecology (1 member), Business (1 member), Law (1 member).

The Vice Chancellor for Research, the Associate Vice Chancellor of Information Technology, and the University Librarian shall be ex officio non-voting members.

**Charge:**

- (1) Consider issues pertaining to fostering research.
- (2) Advise the Chancellor and represent the Division on matters relating to research policy and administration and academic resources, including information technology, telecommunications, and library policies and administration on the Irvine campus.
- (3) Administer general campus funds for faculty research and review and evaluate University-recognized research programs and units.
- (4) Advise the Vice Chancellor for Research on campus nominees or applicants for research awards from foundations and other granting agencies which restrict the number of proposals submitted.
- (5) Represent the Division on the University Committee on Research Policy, the University Committee on Library & Scholarly Communication, and the University Committee on Computing & Communications
- (6) A designated library representative shall be responsible for maintaining Council liaison with the University Librarian, and with any library committees that may exist in any of the Faculties.

Activities of CORCL should take into consideration the university's mission to promote diversity.

<http://www.senate.uci.edu/Councils/CORCL/index.asp>

**UCLA**

**Committee on Library and Scholarly Communication**

**Membership:**

Nine voting faculty appointed by the Committee on Committees and confirmed by the Legislative Assembly for up to 3 years,  
The UCLA University Librarian, ex-officio,  
Two student representatives, 1 undergraduate and 1 graduate appointed by their respective student government.

**Charge:**

The Committee on Library and Scholarly Communication (COLASC) takes, as its principal obligation, to reflect and articulate the views of UCLA faculty members concerning the role

of the University Library in the acquisition, storage, and provision of scholarly materials.

COLASC advises the Chancellor concerning the administration of the Library and scholarly communication. The Committee represents the Division and the faculty in all matters of library policy and advises the Library administration accordingly. COLASC meets twice per quarter

Interactions with Administration:

Primary interactions are with the University Librarian.

<http://www.senate.ucla.edu/committees/library/>

#### **UC Riverside**

##### **Library & Scholarly Communication**

**Membership:**

This committee consists of seven members of the Division, including the University librarian of the Riverside campus, ex officio. The Chair normally also serves on the University Library Committee.

**Charge:**

It is the duty of this committee to:

- (1) Advise the President and the Chancellor regarding the administration of the library and matters concerning scholarly communication at Riverside in accordance with the Standing Orders of the Regents and perform such other duties relative to the library as may be referred by proper authority;
- (2) Participate with the librarian in matters relating to the library budget, the formulation of library policies, the allocation of space, and the apportionment of funds;
- (3) Provide liaison between the Faculty and the library administration in all matters of library policy;
- (4) Prepare and submit to the Division an annual report on financial problems, allocation of space, facilities for research, and any other matters within its jurisdiction;
- (5) Participate in an advisory capacity in the appointment of the librarian.

<http://senate.ucr.edu/committee/?do=info&id=15>

#### **UC San Diego**

##### **Library**

**Membership:**

This committee shall consist of seven ordinary members of the Division, including ex officio the University Librarian at San Diego, who shall not become chair. It shall also have one representative of the Librarians Association of University of California, one undergraduate student representative, and one graduate student representative, who shall not have the right to vote. One member shall also serve on the University Library Committee.

**Charge:**

The Library Committee shall have the following duties:

- (1) It shall advise the President of the University and the Chancellor at San Diego regarding the administration of the Library at San Diego [see 105.2(f) of the Standing Orders of The Regents]. Such advice shall include recommendations concerning the Library budget, the formulation of Library policies, the allocation of space, and the apportionment of funds.
- (2) It shall perform such other duties relative to the Library at San Diego as may be committed to the Division by proper authority.
- (3) It shall provide liaison between the faculty and the Library administration in all matters of Library policy.
- (4) It shall prepare and submit to the Division an annual report on financial problems, allocation of space, facilities for research in campus libraries, and any other matters within its jurisdiction.
- (5) It shall participate in an advisory capacity to the Chancellor at San Diego and the President of the University preliminary to the appointment of the University Librarian.

<http://senate.ucsd.edu/committees/library.htm>

**UC San Francisco**

**Library & Scholarly Communication**

**Membership:**

This Committee shall consist of ten members, including the University Librarian of the San Francisco Division, a representative of the Librarians Association of the University of California - San Francisco Division (LAUC-SF), and one representative from either the UCSF Graduate Student Association or Associated Students of the University of California, San Francisco as ex officio members. The student representative groups shall in alternate years provide representatives (in odd years – GSA, in even years – ASUCSF), with each group serving to coordinate and communicate matters of importance relative to the Library on behalf of both groups. In the event that the Student Associations are unable to alternate representation, they shall determine amongst themselves which organization will send representation.

**Charge:**

- (1) To advise the President and the Chancellor regarding the administration of the library at San Francisco, in accordance with the Standing Orders of The Regents, and perform such duties relative to the Libraries at San Francisco as may be assigned to the Division by proper authority.
- (2) To provide liaison between Faculty and Library Administration on all matters of library policy.
- (3) To participate with the University Librarian on matters relating to library budget formulation policy and the allocation of space and apportionment of funds.
- (4) To prepare and submit to the San Francisco Division an annual report on financial problems, allocation of space, facilities for Library research and any other matters within its jurisdiction.



[http://senate.ucsf.edu/committee/index.php?committee\\_id=10](http://senate.ucsf.edu/committee/index.php?committee_id=10)

**UC Santa Barbara**

**Committee on Library, Information, & Instructional Resources**

(The Committee on Library, Information, & Instructional Resources functions as a subcommittee of the Council on Research and Instructional Resources.)

**Membership:**

Committee on Library, Information & Instructional Resources consisting of a Chair and five (5) Council members. The University Librarian and Associate Vice Chancellor of Academic Programs serve ex-officio;

**Charge:**

Acts for the Division in all matters of Library policy and administration and advises the Chancellor and the Division accordingly; reviews and makes recommendations concerning the print, electronic, space and growth needs of the Library; participates in administrative reviews of the Library and formulates recommendations to the Chancellor, the Division and the Council on Planning and Budget as appropriate.

<https://senate.ucsb.edu/~councils.and.committees/index.cfm?V=F996622685347CB78BE C86C39837969D>

**UC Santa Cruz**

**Committee on the Library and Scholarly Communication**

**Membership:**

There are five Santa Cruz Division members, plus the University Librarian at Santa Cruz serving ex officio. In addition, there are no more than two student representatives. The Chair and Chair-elect of the UCSC Librarians Association are invited to sit with the Committee. The University Librarian does not serve as Chair.

**Charge:**

- 1) The Committee advises the President of the University and the Chancellor at Santa Cruz regarding the administration of the libraries at Santa Cruz, in accordance with the Standing Orders of the Regents. It consults with campus and library administration on local and Universitywide library and scholarly communication policies. Scholarly communication refers to the modalities by which research and creative work are made public, as described in 13.23.4. Whenever appropriate, the Committee joins the library administration in providing representation at Universitywide discussions of library policy. It assists the library administration in determining acquisition and management policies for collections, considering changing patterns of faculty and student use of the library, and the varied needs of the different disciplines.
- 2) In consultation with the University Librarian, the Committee advises the Chancellor

and the Committee on Planning and Budget on the library budget, apportionment of funds, allocation of space, and other matters concerning the library. Advises and consults with the Chancellor on administrative reviews of the library.

- 3) The Committee studies and reports on issues of scholarly communication, including technology, publishing, teaching, archiving, and copyright. The Committee promotes education and advocacy for matters concerning the library and scholarly communication.

<http://senate.ucsc.edu/committees/colasc-committee-on-library-and-scholarly-communication/index.html>

## **California Digital Library**

### **Systemwide Library and Scholarly Information Committee**

The Systemwide Library and Scholarly Information Committee was established to advise the University on systemwide library policies and strategic priorities, on systemwide long term planning for the UC libraries including the ten campus libraries and the California Digital Library (CDL), and on strategies to enhance and facilitate the transmission of scholarly and scientific communication in a digital environment.

#### **SLASIAC Membership and Charge:**

[http://libraries.universityofcalifornia.edu/groups/files/slasiac/docs/SLASIAC\\_charge\\_revised\\_final\\_111411.pdf](http://libraries.universityofcalifornia.edu/groups/files/slasiac/docs/SLASIAC_charge_revised_final_111411.pdf)

<http://libraries.universityofcalifornia.edu/slasiac>

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SANTA BARBARA • SANTA CRUZ

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**February 5, 2014**

**To:** Ignacio López-Calvo, Chair, Division Council

**From:** Ruth Mostern, Chair, Committee on Research (COR)

A handwritten signature in black ink, appearing to read "Ruth Mostern", is written over the "From:" line.

**Re:** Review Process for Research Units

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The Senate and the Office of Research have repeatedly noted that there is currently no Senate review process for any research unit on campus. This is significant as the Senate has never been involved in decisions that ultimately pertain to funding for any campus research units. In the spirit of shared governance, the Office of Research has requested improved Senate guidance. COR, in consultation with the Vice Chancellor for Research, Sam Traina, has identified this as a top priority and has prepared a complete set of recommendations about evaluating current research units and approving future research units on campus.

These documents are based on the *Policies and Procedures for Centralized Research Units (CRU)* (approved by GRC on May 20, 2009), the *Compendium: University Review Processes for Academic Programs, Academic Units, & Research Units* (January 2011); and the *UCOP Administrative Policies and Procedures Concerning Organizing Research Units* (effective January 1, 2000). These documents are also based on documents which prior Graduate & Research Councils drafted in past years, but which never went through a full Senate review process. COR hopes that this formal review process will now occur.

This complete set of materials for evaluation and approval of research units consists of four documents: (1) a table outlining different types of research units on campus (multi-campus, organized, centralized research units and core facilities), (2) a flow chart of the processes that proposals for establishing a research unit must go through for campus approval, (3) the review criteria for evaluating such proposals, and (4) the criteria for five-year reviews for existing research units.

With the exception of the fourth document, the review criteria we have proposed are intended for centers and institutes seeking approval for the first time. Starting next year, any persisting or long-term

research unit entity seeking funds from the Office of Research should go through this approval process prior to seeking resources from the Office of Research. We do not include in these documents procedures for research entities that are informal, very short-term groups, or groups within one school that are not requesting funding from the Office of Research. As a separate matter, existing research units must go through a 5-year review, with the year of review starting from the date of inception of the unit.

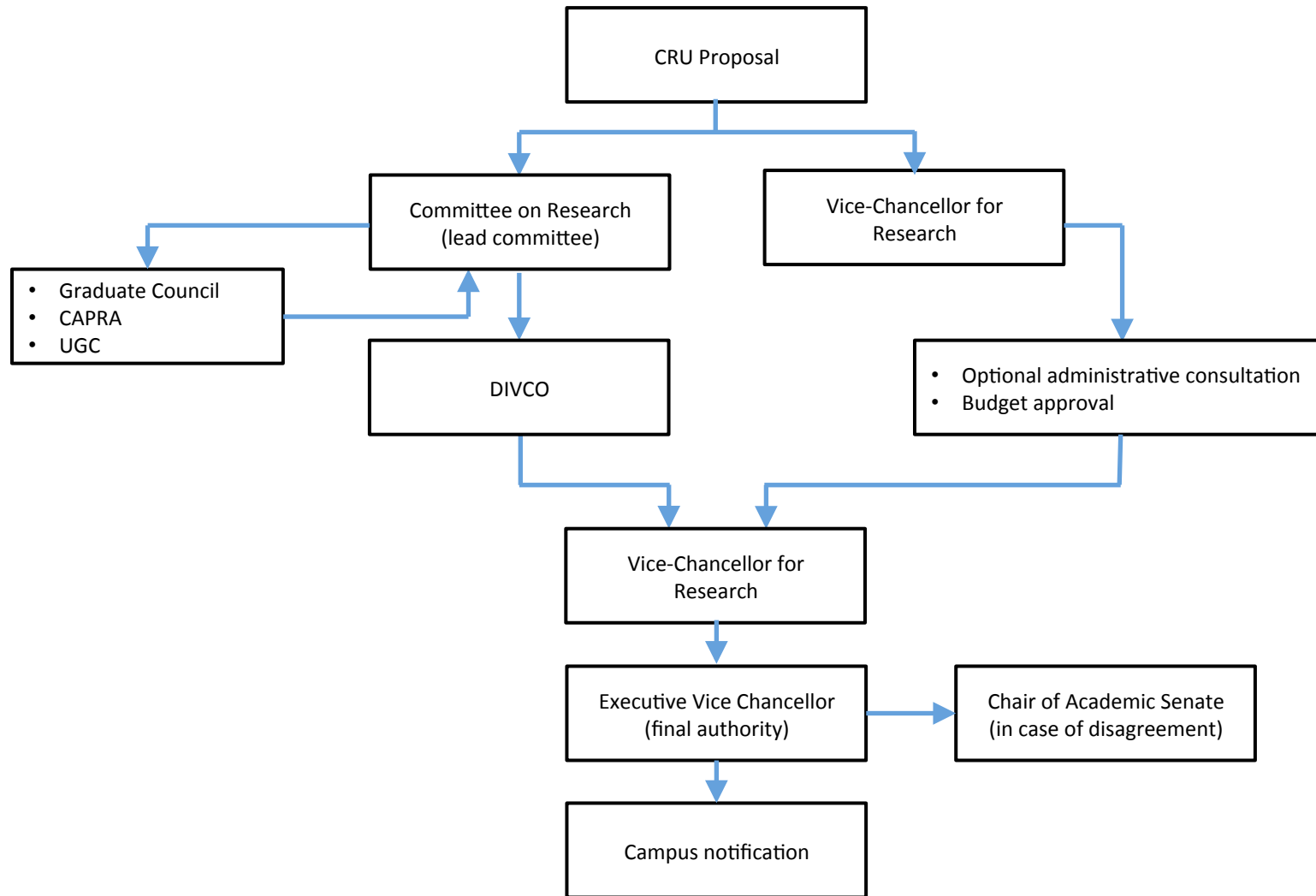
We hope that Division Council acts on these documents in a timely way and transmits a final version to the Provost and VCR for their review. If this is accomplished by the end of this semester, we hope to notify Senate faculty that research units are expected to go through the processes that are outlined in these documents, starting next year, before seeking funding from the Office of Research.

cc: COR Members  
DivCo Members  
Senate Office

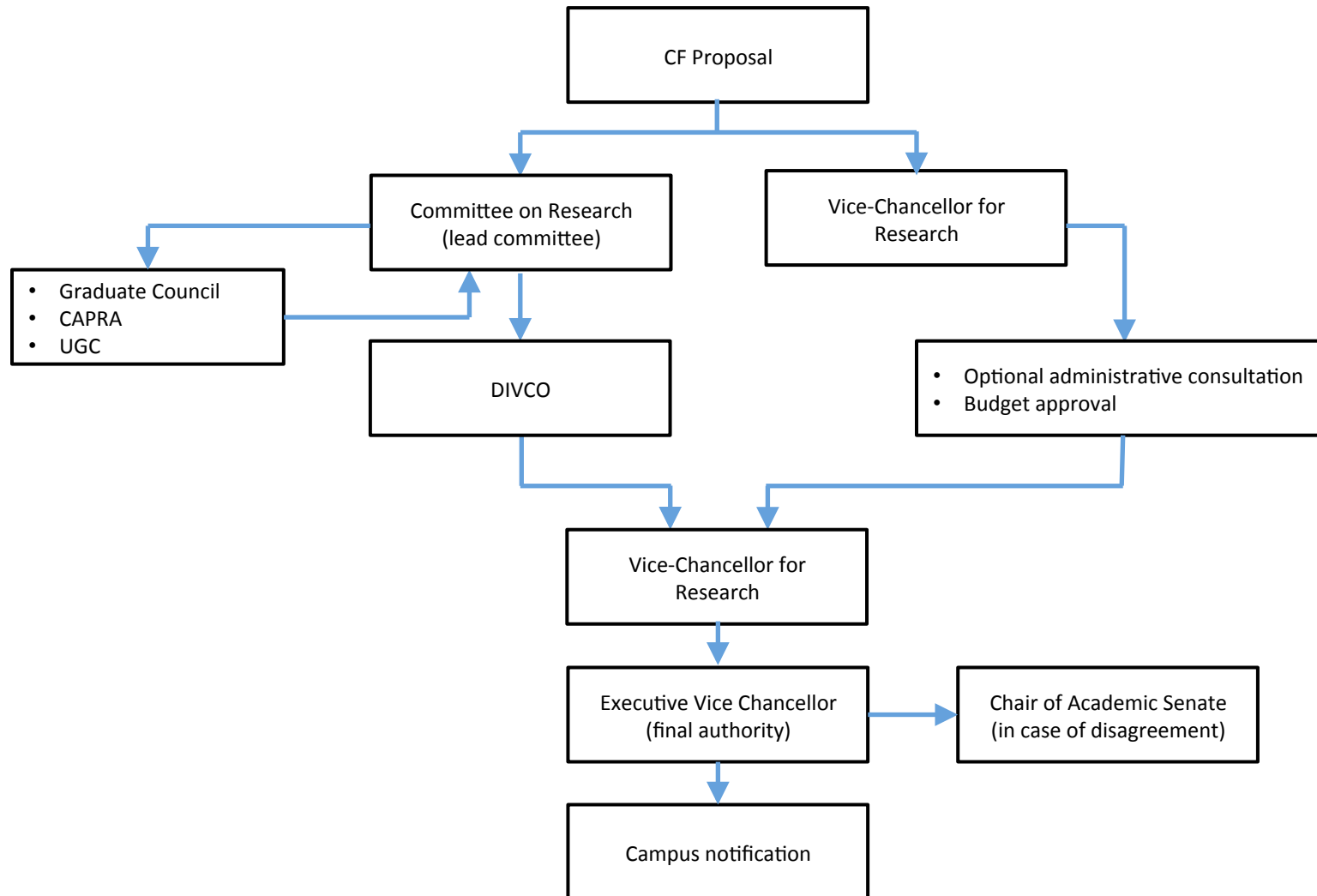
	<b>CRU</b>	<b>Core Facility (CF)</b>	<b>ORU</b>	<b>MRU</b>
Designations	Institute, Laboratory, Center, Station	Institute, Laboratory, Center, Station	Institute, Laboratory, Center, Station	Institute, Laboratory, Center, Station
Lines of Responsibility	CRU responsible to Vice Chancellor for Research (VCR) for administration, budget, space, personnel, and scholarship	CF responsible to VCR for administration, budget, space, personnel, and scholarship	ORU responsible to Chancellor or Chancellor's Designee (CD) for administration, budget, space, personnel, and scholarship	MRU responsible to the President and report through Chancellor or CD at host campus
Administration	Headed by Director who is a faculty member. Aided by Advisory Committee appointed by VCR.	Headed by Director who is a faculty member. Aided by Advisory Committee appointed by VCR.	Headed by Director who is a tenured faculty member. Aided by Advisory Committee Appointed by Chancellor or CD.	Headed by Director who is a tenured faculty member, aided by Associate Director on each campus at which unit is active. Aided by Advisory Committee appointed by President or President designee.
Budgetary Support	Potential funding by Office of Research based on merit review	Funding from recharge and contracts. Potential funding by Office of Research based on merit review	"[P]rovision is made in the campus budget for the unit's core administration support, Director's stipend, ..."	Administrative support from campus or from Office of the President
Proposal for Establishment	Faculty members submit a proposal stating unit's goals and objectives; describing added values and capabilities; explaining how mission extends beyond interests or needs of a single group, department, or school; and making clear how the unit will foster new intellectual collaborations, stimulate new funding, etc. [NB: CRU Policies include Review Criteria] Executive Vice-Chancellor has final authority for approval.	Faculty members submit a proposal stating CF's goals and objectives; describing added values and capabilities; explaining how mission extends beyond interests or needs of a single group, department, or school; and making clear how the unit will foster new intellectual collaborations, stimulate new funding, etc.	Faculty members submit a proposal stating unit's goals and objectives; describing added values and capabilities; explaining why goals cannot be achieved by existing campus structure; and making clear how the unit will foster new intellectual collaborations, stimulate new funding, etc.	Proposal originates at host campus and is submitted to the VCR, who seeks advice from all appropriate divisional Academic Senate Committees and administrative committees. After campus review, proposal is submitted to Vice Provost for Research by Chancellor or CD of host campus. The Vice Provost for Research reviews proposal and refers it to the Chancellor for comment. The Vice Provost for Research also refers the proposal to the Chair of Academic Council for comment by University Committee on Research Policy (UCORP), University Committee on Planning and Budget (UCPB), and CCGA. Vice Provost for Research retains final authority for recommending establishment of MRU to Provost and President. After Presidential approval, Provost informs Chancellors and Chair of Academic Council of the action.
Director	Appointed by VCR after a nomination procedure on which VCR and CoR agree. For new Director for an existing unit, nominates are solicited from Advisory Committee.	Appointed by VCR after a nomination procedure on which VCR and CoR agree. For new Director for an existing unit, nominates are solicited from Advisory Committee.	Appointed by Chancellor or CD after a nomination procedure on which the Chancellor and the Academic Senate agree. For new Director for an existing unit, nominates are solicited from Advisory Committee.	Appointed by the Provost after consultation with appropriate Chancellors and with advice of Search Committee appointed by Vice Provost for Research.

	<b>CRU</b>	<b>Core Facility (CF)</b>	<b>ORU</b>	<b>MRU</b>
Five-year Review	VCR initiates 5-year reviews. VCR in consultation with CoR should assure 5-year reviews are conducted at proper intervals. VCR appoints review committee from a slate nominated by CoR. Review committee's report should be provided to the Director for comment. Justification for continuation must be documented by review committee. The report is reviewed by appropriate Academic Senate committees. VCR decides on continuation and any changes in CRU, upon consideration of the ad hoc and Senate committee's recommendations. Disestablishment of CRU requires Provost's approval. To maintain portfolio campus CRUs, VCR transmits annual report to Chancellor, Executive Vice Chancellor, and the Academic Senate the establishments and disestablishments and a summary of 5-year reviews of CRUs.	VCR initiates 5-year reviews. VCR in consultation with CoR should assure 5-year reviews are conducted at proper intervals. VCR appoints review committee from a slate nominated by CoR. Review committee's report should be provided to the Director for comment. Justification for continuation must be documented by review committee. The report is reviewed by appropriate Academic Senate committees. VCR decides on continuation and any changes in CF, upon consideration of the ad hoc and Senate committee's recommendations. Disestablishment of CF requires Provost's approval. To maintain portfolio campus CFs, VCR transmits annual report to Chancellor, Executive Vice Chancellor, and the Academic Senate the establishments and disestablishments and a summary of 5-year reviews of CFs.	Chancellor initiates 5-year reviews. VCR in consultation with appropriate Senate Committee should assure 5-year reviews are conducted at proper intervals. The Chancellor or CD appoints review committee from a slate nominated by divisional Academic Senate. Review committee's report should be provided to the Director for comment. Justification for continuation must be documented by review committee. The report is reviewed by appropriate Academic Senate committees. The Chancellor or CD decides on continuation and any changes in ORU, upon consideration of the ad hoc and Senate committee's recommendations. Disestablishment of ORU requires Chancellor's approval. To maintain portfolio campus ORUs, the Chancellor or CD transmits annual report to the Vice Provost for Research listing ORU establishments and disestablishments and a summary of 5-year reviews of ORUs.	The Vice Provost for Research should assure that 5 year reviews are conducted at proper intervals. VCR appoints ad hoc review committee from a slate nominated by Chair of the Academic Council and the Chancellor or CD. Review committee's report should be provided to the Director for information. Justification for continuation must be documented by review committee. The 5-Year Review report is submitted to the Vice Provost for Research, who distributes it to the Vice Chancellors for campus comment and the Chair of the Academic Council for comment by UCORP, UCPB, and CCGA. Based on 5-Year Review Report and comments, the Vice Provost for Research approves continuation of unit, implements changes, or recommends disestablishment of unit to President.
Procedure for Disestablishment	Following a 5-year review, Executive Vice Chancellor approves request for disestablishment and informs the Chancellor, VCR, and Academic Senate of action.	Following a 5-year review, Executive Vice Chancellor approves request for disestablishment and informs the Chancellor, VCR, and Academic Senate of action.	Following a 5-year review, the Chancellor approves request for disestablishment and the Chancellor or CD informs the Vice Provost for Research of action.	Following a 5-year review, the Chancellor or CD submits request for disestablishment to Vice Provost of Research after appropriate campus administrative and Senate consultation and consultation with Advisory Committee. The request is referred by Vice Provost for Research to the Chancellors for comment. The Provost recommends disestablishment to the President. After Presidential approval, Provost informs Chancellors and Chair of the Academic Council of action.
Phase-Out Period	At most one full year after the end of the academic year	At most one full year after the end of the academic year	At most one full year after the end of the academic year	At most one full year after the end of the academic year
Procedure for Name Change	Director prepares a proposal to VCR describing rationale. After review by CoR, CAPRA, and appropriate campus administrators, Provost approves and informs Chancellor, VCR, and Academic Senate of action.	Director prepares a proposal to VCR describing rationale. After review by CoR, CAPRA, and appropriate campus administrators, Provost approves and informs Chancellor, VCR, and Academic Senate of action.	Director prepares a proposal describing rationale. After review by Senate and appropriate campus administrators, the Chancellor or CD approves and informs Vice Provost for Research of action.	Director prepares a proposal describing rationale. MRU Advisory Committee endorses requested name change. After review by appropriate host campus administrators and Senate committees of other participating campus, Director submits proposal package to Vice Provost for Research. After consultation with UCORP and favorable review at host campus and participating campuses, the host Chancellor approves name change and submits full documentation to Vice Provost for Research, who notifies other campus and the Chair of the Academic Council of change in name.
Annual Report	Unit should submit a report to VCR and CoR containing specific information.	Unit should submit a report to VCR and CoR containing specific information.	Unit should submit a report to VCR and CoR containing specific information.	Unit should submit a report to VCR and CoR containing specific information.

# Approval Process for Establishment of a Centralized Research Unit (CRU)

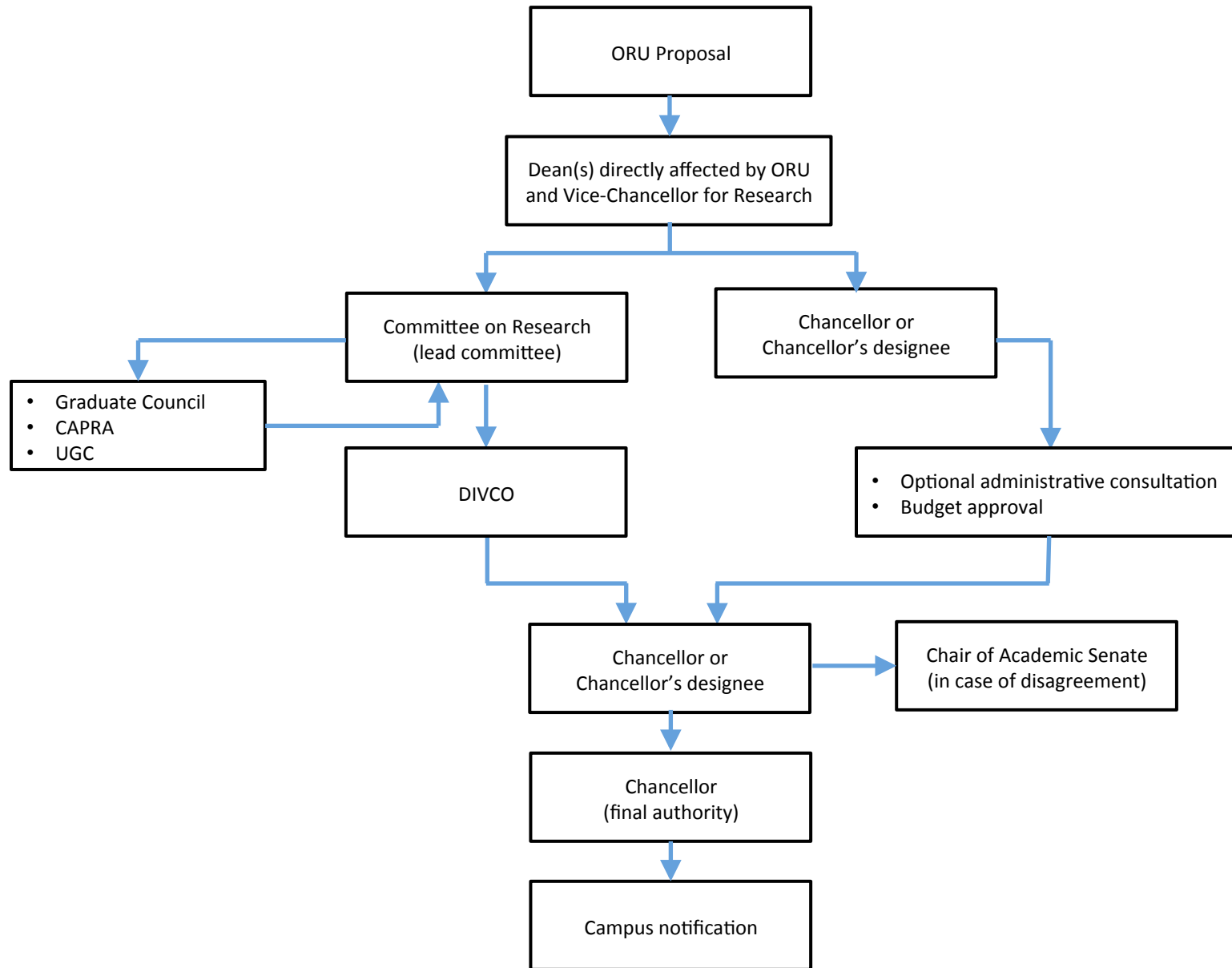


## Approval Process for Establishment of a Core Facility (CF)

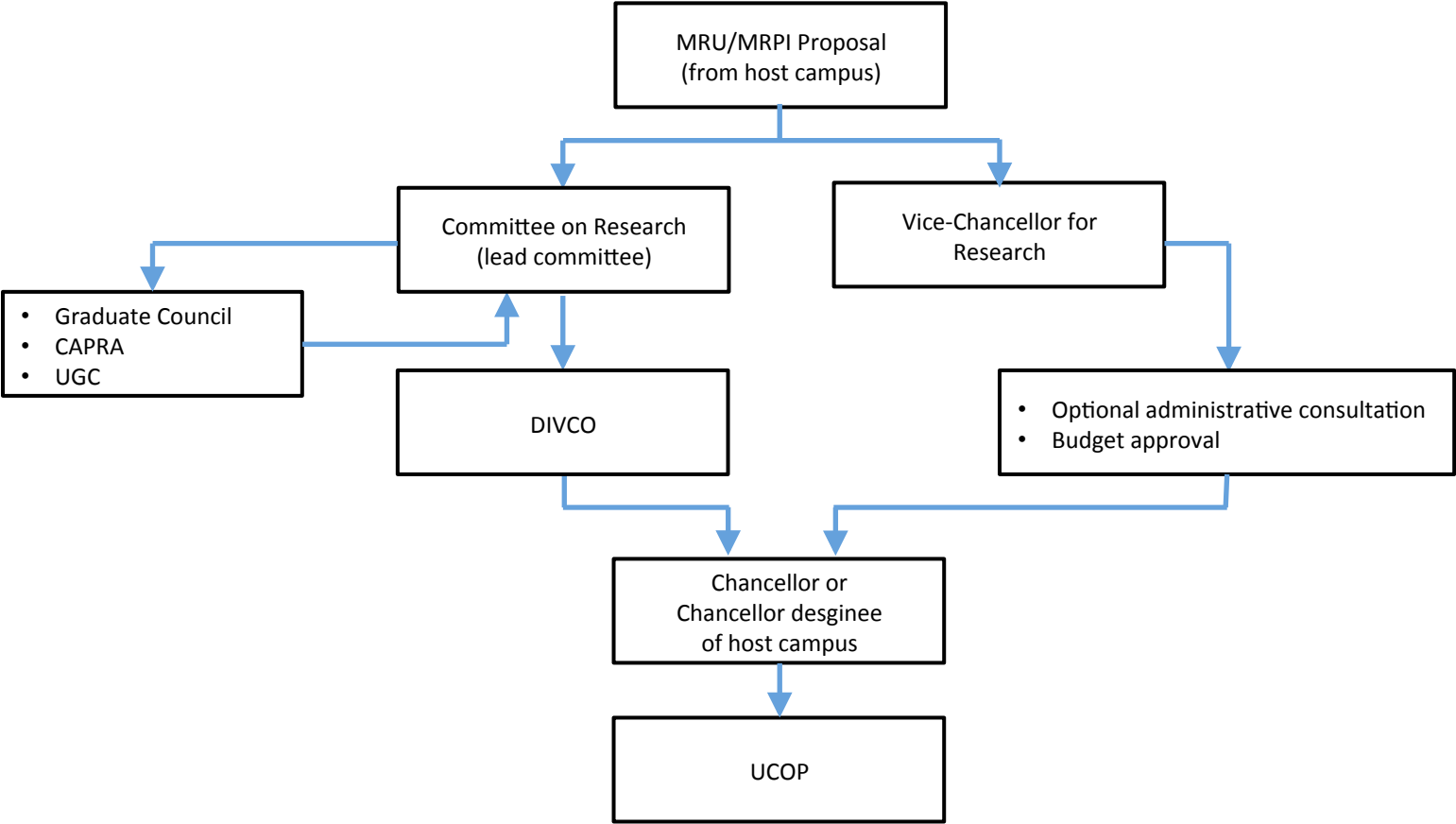




# Approval Process for Establishment of a Organized Research Unit (ORU)



# Approval Process for Establishment of an Multicampus Research Unit (MRU)/MRPI



## **Review Criteria for Establishment of Centralized Research Units**

Centralized Research Units (CRU) proposals must address how the proposed unit will:

1. Foster new intellectual collaborations
2. Stimulate new sources of funding
3. Further innovative and original research
4. Support existing funded research
5. Supply research techniques or services to faculty groups
6. Contribute to the instruction mission of the university
7. Perform service and outreach to the public
8. Support a broad array of researchers, graduate group, schools, and the campus
9. Have sufficient faculty and technical expertise to ensure the successful operation of the unit
10. Have a management and financial plan that will ensure sustainability of the unit
11. Have a plan for how immediate and future space needs will be met
12. Procure extramural funds for its establishment and operation

## **Review Criteria for Establishment of Core Facilities**

Core Facility (CF) proposals must address how the proposed facility will:

1. Foster new intellectual collaborations
2. Stimulate new sources of funding
3. Further innovative and original research
4. Support existing funded research
5. Supply research techniques or services to faculty groups
6. Contribute to the instruction mission of the university
7. Perform service and outreach to the public
8. Support a broad array of researchers, graduate group, schools, and the campus
9. Have sufficient faculty and technical expertise to ensure the successful operation of the facility
10. Procure extramural funds for its establishment and operation
11. Have a management and financial plan that will ensure sustainability of the facility
12. Have a plan for how immediate and future space and instrumentation needs will be met
13. Comply with existing safety and operational regulations

## **Review Criteria for Establishment of Organized Research Units**

Organized Research Units (ORU) proposals must address how the proposed unit will:

1. Foster new intellectual collaborations
2. Stimulate new sources of funding
3. Further innovative and original research
4. Support existing funded research
5. Supply research techniques or services to faculty groups
6. Contribute to the instruction mission of the university
7. Perform service and outreach to the public
8. Support a broad array of researchers, graduate group, schools, and the campus
9. Have sufficient faculty and technical expertise to ensure the successful operation of the unit
10. Have a management and financial plan that will ensure sustainability of the unit
11. Have a plan for how immediate and future space needs will be met
12. Procure extramural funds for its establishment and operation

## **Review Criteria for Establishment of Multicampus Research Units**

Multicampus Research Units (MRU) proposals must address how the proposed unit will:

1. Foster new intellectual collaborations
2. Stimulate new sources of funding
3. Further innovative and original research
4. Support existing funded research
5. Supply research techniques or services to faculty groups
6. Contribute to the instruction mission of the UC system
7. Perform service and outreach to the public
8. Support a broad array of researchers, graduate group, schools, the campus, and the university system
9. Have sufficient faculty and technical expertise to ensure the successful operation of the unit
10. Have a management and financial plan that will ensure sustainability of the unit
11. Have a plan for how immediate and future space needs will be met
12. Procure extramural funds for its establishment and operation

## **Five-Year Review Criteria for Centralized Research Units**

Centralized Research Units (CRU) reviews must address the following:

1. CRU's original purpose
2. Present functions
3. Accomplishments (e.g., publications, grants, new collaborations, number of users, and educational/outreach activities associated with the unit)
4. Future plans
5. Continuing development

CRU reviews will assess the following:

1. Adequacy of space and other resources made available to the unit
2. Success in meeting previously established objectives, planned changes in program objectives, and planned steps to achieve new objectives
3. Effectiveness and leadership of the Director and the participation of the Advisory Committee
4. Budget, including funds and expenditures

## **Five-Year Review Criteria for Core Facilities**

Core Facility (CF) reviews must address the following:

1. CF's original purpose
2. Present functions
3. Accomplishments (e.g., publications, grants, new collaborations, number of users, and educational/outreach activities associated with the unit)
4. Future plans
5. Continuing development

CF reviews will assess the following:

1. Adequacy of space and other resources made available to the unit
2. Success in meeting previously established objectives, planned changes in program objectives, and planned steps to achieve new objectives
3. Effectiveness and leadership of the Director and the participation of the Advisory Committee
4. Budget (including funds and expenditures, and adequateness and appropriateness to support the CF's mission)
5. Compliance with safety and operational regulations



## **Five-Year Review Criteria for Organized Research Units**

Organized Research Units (ORU) reviews must address the following:

1. ORU's original purpose
2. Present functions
3. Accomplishments (e.g., publications, grants, new collaborations, number of users, and educational/outreach activities associated with the unit)
4. Future plans
5. Continuing development

ORU reviews will assess the following:

1. Adequacy of space and other resources made available to the unit
2. Success in meeting previously established objectives, planned changes in program objectives, and planned steps to achieve new objectives
3. Effectiveness and leadership of the Director and the participation of the Advisory Committee
4. Budget, including funds and expenditures

## **Five-Year Review Criteria for Multicampus Research Units**

Multicampus Research Units (MRU) reviews must address the following:

1. MRU's original purpose
2. Present functions
3. Accomplishments (e.g., publications, grants, new collaborations, number of users, and educational/outreach activities associated with the unit)
4. Future plans
5. Continuing development

MRU reviews will assess the following:

1. Adequacy of space and other resources made available to the unit
2. Success in meeting previously established objectives, planned changes in program objectives, and planned steps to achieve new objectives
3. Effectiveness and leadership of the Director and the participation of the Advisory Committee
4. Budget, including funds and expenditures