

## Public Health Sciences Minor Proposal

### Department of Public Health Sciences

1. **Name if New minor:** Minor in Public Health Sciences
2. **Campus:** Davis Campus
3. **Specify the degree to be conferred:** *Not necessary for minors.*
4. **Specify any tracks:** No tracks required for the minor in Public Health Sciences.
5. **Target term to start:** Winter 2017
6. **Briefly describe the minor:**
  - a. Describe relationship to existing campus majors and overlap. Consult with program that may perceive an overlap or conflict. (As appropriate, attach letters from impacted programs.)

All required courses for the minor will be taught by the Department of Public Health Sciences. The Department is committed to providing students with the coursework needed for the minor as well as meeting all of the requirements of the minor. Students take electives from suggested possibilities that include courses appropriate to the field of public health or courses approved by an advisor. With the exception of the Nutrition in Public Health option of the Nutrition Science undergraduate major and the Global Disease Biology undergraduate major, the public health sciences minor is not expected to significantly affect and/or impact other programs. Letters of support from the leaders of the Global Disease Biology major and the Nutrition Science major, Public Health option are attached (Appendix A).

The Public Health Sciences minor at UC Davis will not duplicate the course offerings of other campus degree programs. The Nutrition Science major, Public Health option provides a focus on nutritional biology and health in the context of the natural and applied sciences, agricultural and health policy, cultural diversity and community change, and community health and education. The new Global Disease Biology undergraduate major has a global emphasis that integrates human, veterinary and plant health, in contrast to Public Health Science's exclusive (and broadly based) focus on human health.

- b. What are the educational objectives of the program (provide core competencies and learning outcomes)?

The educational objective of the minor is to prepare undergraduate students for study in the field of public health. That is, to obtain a broader understanding of public health knowledge, concepts, and skills, thus to encourage and promote public health graduate study at UC Davis through the following:

Undergraduate Public Health Learning Outcomes Model<sup>1</sup>:

Domain/Core Competency	Learning Outcomes: <i>As educated members of society, all undergraduates should be able to:</i>
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<p>1. Knowledge of human cultures and the physical and natural world as it relates to individual and population health:</p> <p><i>Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts..</i></p>	<p>1.1. Define public health and related roles and responsibilities of government, nongovernment agencies, and private organizations.</p> <p>1.2. Describe risk factors and modes of transmission for infectious and chronic diseases and how these diseases affect both personal and population health.</p> <p>1.3. Describe the reciprocal relationships among literature, the arts, and public health.</p> <p>1.4. List the leading causes of mortality, morbidity, and health disparities among local, regional, and global populations.</p> <p>1.5. Discuss the role of gender, race, ethnicity, and other evolving demographics in affecting population health.</p>
<p>2. Intellectual and practical skills:</p> <p><i>Inquiry and analysis, Critical and creative thinking; Written and oral communication; Quantitative literacy; Information literacy; Teamwork and problem solving.</i></p>	<p>2.1. Describe how the methods of epidemiology and surveillance are used to safeguard the population’s health.</p> <p>2.5. Conduct a literature search on a health issue using a variety of academic and public resources.</p> <p>2.7 Analyze alternative viewpoints regarding a health topic.</p> <p>2.8 Assess the source and quality of health information and data, as related to individual and community health.</p> <p>2.9 Appreciate the multiple determinants of health.</p>
<p>3. Personal and social responsibility</p> <p><i>Civic knowledge and engagement-local and global; Intercultural knowledge and competence; Ethical reasoning and action; Foundations and skills for lifelong learning.</i></p>	<p>3.4 Collaborate with others from diverse backgrounds in addressing health disparities and inequities.</p> <p>3.7. Examine the fundamental right to health and health services.</p> <p>3.9. Champion the role of prevention in promoting a healthy community.</p> <p>3.10. Endorse lifestyle behaviors that promote individual and population health and well-being.</p> <p>3.11. Value multicultural perspectives and sensitivities on health.</p>

The educational objectives, core competencies and learning outcomes for the minor were based on the *Undergraduate Learning Outcomes Model*, developed by the Associations of Schools & Programs of Public Health (ASPPH)<sup>1</sup>, the Association of American Colleges and Universities, Association for Prevention Teaching and Research, and Centers for Disease Control and Prevention. The public health learning outcomes model was developed in response to the Institute of Medicine’s recommendation to make public health education accessible to all undergraduates<sup>2</sup>. The model was designed to facilitate the introduction of public health to undergraduate students at institutions of higher learning.

The ASPPH represents the Council on Education for Public Health (CEPH)-accredited member schools and programs. The UC Davis MPH program is a member of ASPPH and its public health graduate degrees are accredited by CEPH.

c. What special requirements or features?

No special requirements and/or features are required.

- d. As appropriate, list UC Campuses and other California institutions, public or private, that now offer the major or closely related majors. – *Not necessary for minors.*

### **Details of a Public Health Sciences Minor**

The Public Health Sciences minor will offer undergraduate students a foundation of knowledge for those who plan to enter the field of public health immediately following graduation and for those planning to earn an advanced degree in Public Health or a related field including medicine, nursing, and dentistry. It is open to students from all four colleges at UC Davis. The minor in Public Health Sciences offers the option of doing an internship for 2–4 elective units.

Students who complete the minor in Public Health Sciences will demonstrate the following:

1. Knowledge of key content regarding epidemiology and biostatistics, major health conditions, disease prevention strategies, and health disparities.
2. Knowledge of key determinants of health and disease, including biological factors, individual behavior, and social, political, and cultural influences.
3. Ability to communicate orally and in writing about concepts in epidemiology and biostatistics, disease prevention, and health disparities.

There are 11 units of core courses taught by the Department of Public Health Sciences that are required for the Public Health Sciences minor. *SPH 101: Introduction in Public Health* (3 units) is an upper division survey course that introduces students to key concepts in public health. It uses Introduction to Public Health by Mary Jane Schneider<sup>3</sup> as the course textbook to provide foundational readings on epidemiology and biostatistics and the distribution of disease; chronic diseases as the leading causes of death and disability in the US.; the US health care system and the influences of quality, cost, and access on the health of the public; the health care reform landscape and the possible roles of public health in it; and, the most important public health problems/issues of our time, including income and health disparities, aging of the population, physical inactivity, obesity, population, and climate change. A new course, *SPH 102: Introduction to Human Epidemiology* (4 units), students learn and understand the practice of epidemiology as it relates to human populations. Its major objective is to familiarize the student with how epidemiology contributes to: 1. The understanding of the causes and natural history of diseases of all kinds, 2. The control of disease in human populations, and 3. Scientific judgement and inquiry in public health problems. In Winter 2016, the course was approved as a GE requirement - topical breadth for science and engineering. *SPH 290: Topics in Public Health* (1 unit) brings real world public health challenges, programs and practices to the classroom with public health practitioners presenting their work on a range of topics, such as the pertussis (whooping cough) outbreak in California; policy and educational approaches to tobacco control. Finally, students will have the option to choose between learning more about global or domestic public health issues through *SPH 104: Globalization and Health* (3 units) or a new course, *SPH 103: Health Disparities in the US* (3 units). In *SPH 104* the central focus is to understand the mechanisms by which the distribution of power and economic resources globally and nationally affects the health status of nations and social groups. Using an evidence-based approach, globalization policies is scrutinized in terms of their ability to promote or

deteriorate health, wellbeing and the environment. In Fall 2015, the course was approved as a GE requirement - topical breadth for Social Science & World Cultures. SPH 103 provides an introduction to the principles and practice of health disparities research. With a focus on concepts, methods, key issues, and applications, this course aims to provide the knowledge and research tools needed to conduct and develop translational and transdisciplinary research and interventions to eliminate health disparities. In Winter 2016, the course was approved as a GE requirement - topical breadth for Domestic Diversity & Social Science.

In addition to the 11 units of required courses, at least 9-10 units of suggested elective courses are needed for a minor at UC Davis. The suggested elective courses are offered in the Department of Public Health Sciences and in more than 10 departments across three schools and four colleges at UC Davis. The suggested elective courses offer students the opportunity to improve skills in a public health related technical area, such as biostatistics, bioinformatics or toxicology (ECS 124; EXT 101); to learn about cultural competencies in medicine and public health (CHI 121; ASA 132); or to learn more about the health care system (SOC 154; ECN 132). Students may also complete a maximum of 4 elective units on a practice or research internship (SPH 192 or SPH 199). A faculty advisor will be required for a research internship, and a faculty or community preceptor will be required for a public health practice internship. We expect that the student choices of electives will be widely spread among the many alternatives and will not significantly impact any one course or department.

**7. Describe the rationale for the proposal.**

- a. Explain why this new program is needed.

**Why does UC Davis need a minor in Public Health Sciences?**

The Public Health Sciences minor was developed in response to student demand for coursework in public health and the need to expand and diversify the candidate student pipeline to graduate training in public health professions. The Institute of Medicine defines the mission as “...fulfilling society’s interest in assuring conditions in which people can be healthy.”<sup>4</sup> This can range from applying epidemiological methods and biostatistical techniques to identify the cause of a disease, to an emergency response to an earthquake or flood, to implementing multiple educational and policy strategies to reduce smoking rates in populations.

Since 2002 the Department Public Health Sciences (PHS) offered a Master in Public Health (MPH), which is the most common graduate professional degree in the public health field<sup>5</sup>. Public Health Sciences faculty taught a limited number of undergraduate courses in public health over the years, and the Department is now in the process of expanding its commitment to undergraduate education.

UC Davis student demand for undergraduate courses in public health is growing. The Public Health Sciences Department taught *SPH 101: Perspectives in Public Health* for approximately 20 years. Since the winter of 2012, 255 undergraduates have taken SPH 101. Due to student demand, the Department now offers the course twice each academic year (every winter and spring quarter) and expanded enrollment to 70 students each quarter. In the summer of 2015, the course was approved as a

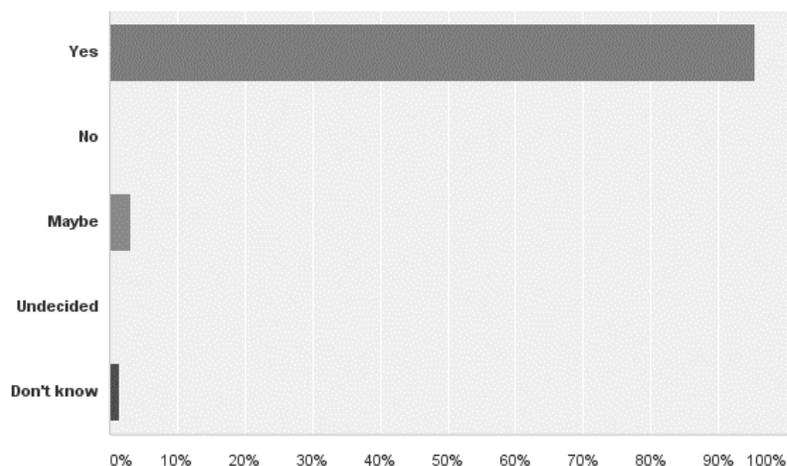
GE requirement - topical breadth for science and engineering and social sciences. In response to renewed demand from students, SPH 101 enrollment has been increased to 100 students (with waitlist).

PHS could easily double enrollment because of the large number of students interested in the public health field: volunteers in the student-run clinics, members of the 41 health-related student clubs or groups on campus, and hundreds of students majoring in a variety of subjects including Human Development, Neurobiology, Physiology and Behavior, Biological Sciences and Nutrition Science. In addition, the UC Davis Pre-Health Student Alliance (a partnership between the pre-medical and pre-health student organizations, fraternities, and sororities at UC-Davis and other local colleges in Sacramento) has hosted for 13 years the nation's largest pre-health professions conference. This annual event brings together school administrators from nearly all United States medical schools and a wide variety of other Pre-Health Professional schools, including Public Health, Dentistry, Pharmacy, and Nursing. The 3-day event includes over 350 presentations, panels and workshops that focus on engaging and recruiting a diverse cohort of students to the health sciences.

b. Provide documentation of student opinion on the proposal (e.g., student survey)

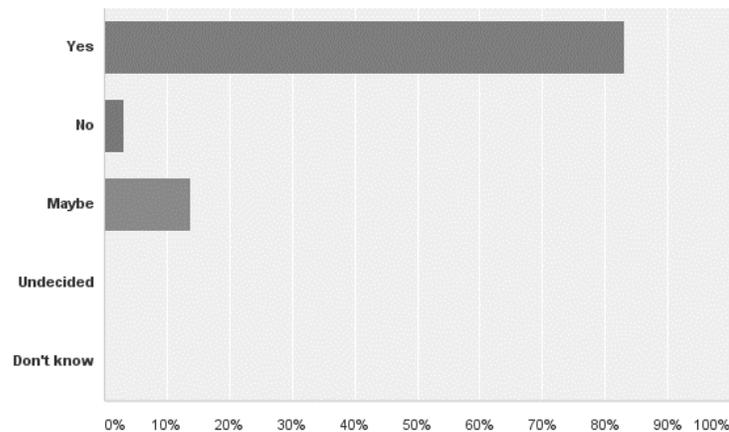
In winter quarter 2016, undergraduate students enrolled in SPH 101 (Introduction to Public Health) and SPH 105 (Health Disparities in the US) participated in an online survey assessing their views of the proposed public health sciences minor (for complete results see Appendix B). A total 65 undergraduate students participated in the online survey. Overall, the majority of students expressed an interest in public health (93%) and when asked if a minor were offered 83% reported that they would be interested in enrolling (see Figure 1).

**Figure 1. If a public health minor were made available at UC Davis to students like you, would you enroll in it?**



Finally, students were asked if taking course work and/or having a minor in public health sciences would help them in their future goals (Figure 2), 93% reported yes, 3.1% maybe and 1.5% don't know.

**Figure 2. Do you think course work and/or training in public health would help you to pursue your future career and/or academic goals?**



- c. Provide projected job opportunities for graduates.

The American Public Health Association (APHA) published a special issue in 2006 titled *“Health Workforce Shortage: Left Unchecked, Will We Be Protected?”* The report focused on the need to increase the number of students pursuing public health degrees to address the severe workforce shortage in areas that were critical to public health, in particular epidemiology, public health nursing, laboratory science and environmental health fields<sup>6</sup>. The decline and loss of public health workers was primarily attributed to a reduction in funding resources and the large number of the public health workers retiring and/or transitioning to other job opportunities such as those in the private sector. Training students in public health careers is critical so that emergencies such as disasters like Hurricane Katrina and outbreaks such as measles, pertussis, severe acute respiratory syndrome (SARS) and epidemics of influenza or Ebola can be effectively addressed. The University of California Office of the President’s public health workforce assessment, released in 2004, predicted a shortage of formally trained public health professionals and noted a lack of diversity among public health professionals contributing to a mismatch between the public health workforce and the highly diverse public we

serve<sup>7</sup>. To solve these problems, the committee made several recommendations, including the expansion of undergraduate education in public health. The committee wrote:

“Access to undergraduate public health courses increases student exposure to the field. UCB’s reestablishment—after a hiatus of 34 years—of an upper division major in public health is a good step in this direction. Similarly, UCLA recently introduced an undergraduate public health minor. Expanding undergraduate classes will help to train more students in public health, regardless of their major area of study, and will contribute to a better-educated workforce. These programs also serve to increase the pool of candidates for graduate study in public health and other health professions.”

Many of the UC campuses already offer a minor and major in public health, including UC Berkeley, UCLA, UC San Diego, UC Irvine, and UC Merced. This trend within the UC system is consistent with a growth nationally in undergraduate public health education<sup>5</sup>. Between 1992 and 2012, the number of institutions conferring undergraduate degrees in public health increased from 45 to 176, and the number of graduates grew from 759 in 1992 to 6, 464 in 2012<sup>5</sup>. In 2012, 751 undergraduates obtained a degree in public health from 11 different California colleges and universities<sup>5</sup>.

- d. Provide a summary of the evaluation process during the first three years it is implemented. – *Not necessary for a minor.*

**8. Provide a list of proposed curriculum and comment on the availability and space in each course. Items a. through g. are listed below:**

- a. List all existing courses to be required.
- b. List existing courses that will be electives.
- c. List all course prerequisites.
- d. List all new courses to be required or included as electives.
- e. Explain the sequencing of new course offerings over the first five years.
- f. Specify (by name and rank) the instructors of each course.
- g. Include course catalog descriptions for proposed core courses.

**Requirements for enrollment and completion of the minor**

Successful completion of the minor requires the following:

- The minor must be outside the department or program of the student’s major.
- A minor application must be filed with and approved by the Department of Public Health Sciences.
- Courses used to satisfy the requirements of a minor, including those completed elsewhere, must be approved by an advisor in the sponsoring department.
- Minimum overall GPA of 2.0 for coursework completed in the minor.

- To receive a minor program notation on the student's transcript, the student must successfully complete the minor's required curriculum and file a minor petition (available from the College of the student's major) no later than the deadline for filing for graduation, to get a minor program notation on the student's transcript. The transcript notation will appear as "Public Health."
- Elective courses may include up to 4 units of internship and or research credit toward the minor. For the minor: SPH 192, 198 & 199 must be taken under the supervision of a Department of Public Health Sciences faculty member and a signed/completed contract must be on file in the advising center office before taking the class.

<b>Public Health Sciences Minor (20 units) -Proposed</b>								
Total units required for the minor: 20								
Total I units required for the minor: 9-10 units minimum; 10-11 units from list of suggested electives								
Required core courses (10-11 units)								
Course number	Course Name	Units	Prereqs	Quarter Offered	Grade base	Instructor (s)	Instructor (s) Rank	
SPH 101	Introduction to Public Health	3	none	W, S	A-F	Stephen McCurdy / Dennis Pocekay	Professor, MD, MPH/ Volunteer Clinical Faculty, MD, MPH	
SPH 102	Introduction to Human Epidemiology	3	none	F	A-F	Lorena Garcia	Associate Professor, DrPH, MPH	
SPH 190	Topics In Public Health	1	none	F,W, S	P/NP	Various		
	Choose One of the Following Classes:							
SPH 104	Globalization and Health	3	SPH 101	F	A-F	Roberto De Vogli	Associate Professor, PhD, MPH	
SPH 105	Health Disparities	2	SPH 101	W	A-F	Lorena Garcia	Associate Professor, DrPH, MPH	
Suggested minor electives (10-11 units minimum to complete the 20 unit requirement)								
Some courses may require prerequisites; additional elective courses can be approved by an advisor								
*Only one of these courses counts toward the minor; consent of advisor or preceptor is required								
Course number	Course Name	Units	Prereqs	Quarter Offered	Grade base	Area of Public Health Emphasis	Course Instructor	Instructor Rank

SOC 154	Sociology of Health, Illness and Health Care	4		F	A-F	Health Policy and Administration	Drew Halfmann	Assistant Professor
ECN 132	Health Economics	4	Course 100 or Consent of Instructor	S	A-F	Health Policy and Administration	Marianne P. Bitler; or Doug Miller	Professor; Associate Professor
FAP 195	Healthcare to Underserved Populations	1 unit; 2 units max.	sociology, political science, or applied behavioral science background recommended, or registration in medical school	W,S	P/NP	Health Policy and Administration	Wetona Eidson-Ton	Associate Clin Professor
FAP 192C	Primary Care Clinics (1-2)	1 unit; 2 units max.	consent of instructor, enrollment at the UC Davis campus, upper-division standing	F,W,S	A-F	Health Policy and Administration	Staff	
CHI 121	Chicana/o Community Mental Health	4	CHI 10 or CHI 20	S	A-F	Health Disparities	Yvette Flores	Professor
ETX 101	Principles of Environmental Toxicology	4	Chem 8B, 11B, or 128B and BIS 1A	F	A-F	Environmental Health	Michael Denison	Professor
ETX 146	Exposure and Dose Assessment	3	Alt year course	S	A-F	Environmental Health	Debbie Bennett	Professor
HIS 109B	Environmental Change, Disease and Public Health	4		F	A-F	Environmental Health	Diana Davis	Associate Professor
CRD 149	Community Development Perspectives on Environmental Justice	4	Social Science Research Methods Course	S	A-F	Environmental Health	Jonathan London	Associate Professor
CMN 161	Health Communication	4		F	A-F	Social and Behavioral Sciences	Robert Bell	Professor and Chair
PSC 126	Health Psychology	4	Course 1, 41, 101	F	A-F	Social and Behavioral Sciences	Joshua Herrington	Postdoc Employee

ECS 124	Theory and Practice of Bioinformatics	4	Course 10 or 30 or ENG 6; STA 12 or 13 or 32 or 100 or 131A or MAT 135A; BIS 2A or Molecular and Cellular Biology 10		A-F	Bioinformatics	Ilias Tagkopoulos	Assistant Professor
PMI 129Y	One Health: Human, Animal, & Environment Interfaces	3	Limited to upper division undergrad students in good standing		A-F	One Health/Global Health	Woutrina Smith	Associate Professor
ANT/STS 129	Health and Medicine in a Global Context	4	Course 2 or Science and Technology Studies 1	F	A-F	Global Health	Ingrid Lagos	ASSOC IN_-AY-1/9-GSHIP
SPH 190	Topics in Public Health Seminar	1 unit; 3 units max.		F,W,S	P/NP	General Public Health	Various	
CHI 40	Comparative Health: Top Leading Causes of Death	4	STA 13 or consent of instructor	S	A-F	General Public Health/Health Disparities	Natalia Deeb Sossa	Associate Professor
SPH 92/192*	Internship in Community Health Practice	4 units maximum	Upper division and graduate students; consent of instructor	F,W,S	P/NP	Internship	Various	
SPH 199*	Research in Community and International Health	4 units maximum	Undergraduate standing; consent of instructor	F,W,S	P/NP	Research	Various	
SPH 198*	198. Study in Community and International Health	4 units maximum	Undergraduate standing; consent of instructor	F,W,S	P/NP	Independent Study	Various	
SPH 198*	198. Study in Community and International Health through the UC Davis Health Education and Promotion (HEP) Program	4 units maximum	Undergraduate standing; consent of instructor	F,W,S	P/NP	Internship, UC Davis Health Education and Promotion (HEP) Program	Polly Paulson, MPH	Volunteer Clinical Faculty, Health Education Supervisor

STA 13	Elementary Statistics	4	Two years of high school algebra or the equivalent in college	F,W,S	A-F	Statistics	Kristin Van Gassbeck; David Lang; Susan Alber	LECT-AY-1/9; VIS Professor; Lecturer
SPH 198*	MED LIFE	1	Undergraduate standing; consent of instructor	W, S	P/NP		Brad Pollock	
STA 100	Applied Statistics for Biological Sciences	4	MAT 16B or equivalent	F,W,S	A-F	Statistics	Rahman Azari; Susan Alber	Lecturer; Lecturer
STA 144	Sampling Theory of Surveys	4	Course 130B or 131B	F	A-F	Statistics	Christina Drake	Professor
ECON 140	Econometrics	4	Course 102, 100 and 101; MAT 16A and 16B or MAR 21A and 21B; STA 13, or any upper division Statistics course	W, S	A-F	Economics	Shu Shen	Assistant Professor
NUT 111AY	Introduction to nutrition and metabolism		Chemistry 8B; Neurology, Physiology, and Behavior 101 or the equivalent. Restricted to upper division or graduate level students only.	W	A-F	Nutrition	Staff	Staff
NUT 111B	Recommendations and standards for nutrition		Chemistry 8B; Neurology, Physiology, and Behavior 101 or the equivalent, course 111AV or 111AY.	S	A-F	Nutrition	Zidenberg-Cherr	Professor

\*Students minoring in Public Health Sciences can suggest additional courses as appropriate. Courses will be reviewed by the minor Director and approved on an as needed basis.

### **Course Descriptions**

#### **SPH 101. Introduction to Public Health (3)**

Lecture—3 hours. Prerequisite: undergraduate standing. Covers comprehensively the responsibilities, obligations, roles and professional activities of various health care disciplines in the community; provides students with perspectives on preventive medicine in society.— Graded. Offered winter and spring quarters. II. III. Pocekay, McCurdy

#### **SPH 102. Introduction to Human Epidemiology (4)**

Lecture/Discussion-4 hours. Introduction on the fundamental principles of epidemiology, exploring patterns of disease, threats to health and epidemiological methods for prevention, control and treatment. (III) Garcia.

**SPH 105. Health Disparities in the US (3)**

Lecture/Discussion-3 hours. An introduction to the research that helps understanding health disparities and social determinants in the United States; review of culturally responsive approaches. (II) Garcia.

**SPH 104. Globalization and Health: Evidence and Policies (3)**

Lecture/Discussion - 3 hours. Open to undergraduate and graduate level students. The course Globalization and Health brings all these questions together to investigate the multiple effects of globalization on health and emphasizes available evidence and policies.-(I) De Vogli

**SOC 154. Sociology of Health Care (4)**

Lecture—3 hours; Discussion—1 hour or term paper or research project. Overview of sociological research in medicine and health care, with emphasis on the organizational, institutional, and social psychological aspects. GE credit: SocSci | SS.

**ECN 132. Health Economics (4)**

Lecture—3 hours; Discussion—1 hour. Prerequisite: course 100 or consent of instructor. The health care market, emphasizing the role and use of economics. Individual demand, provision of services by doctors and hospitals, health insurance, managed care and competition, the role of government access to health care.—II. (II.) Cameron

**FAP 192C. Primary Care Clinics (1–2)**

Clinical activity—6–8 hours; seminar—2 hours; lecture—1–2 hours. Prerequisite: consent of instructor, enrollment at the UC Davis campus, upper-division standing. Students must apply and interview with the Board of Clinica Tepati or Imani Clinic. Field experience introduces students to health care delivery, patient histories and physical examinations, health promotions and disease prevention, diagnosis and treatment of episodic, acute and chronic illness, basic laboratory testing and appropriate referral and follow-up. May be repeated for credit. (P/NP grading only.)—I, II, III, IV. (I, II, III, IV.) Edison-Ton, Hitzeman, Smith 2 units max to be used for minor.

**FAP 195. Health Care to Underserved Populations (1)**

Lecture—1 hour. Prerequisite: sociology, political science, or applied behavioral science background recommended, or registration in medical school. Discusses sociocultural perspectives of underserved populations in California impacting their health; roles of family/interpersonal relationships in making health care decisions; and clinician's perspectives in treating people of cultures which are unfamiliar and/or uncomfortable with Western medicine. May be repeated for credit. (P/NP grading only.)—II, III. (II, III.) Nesbitt

**CHI 40. Comparative Health: Top Leading Causes of Death (4)**

Lecture/Discussion—3 hours; discussion—1 hour.

Prerequisite: Statistics 13 or consent by instructor. Introduction to the epidemiology of the leading causes of death for ethnic/racial minorities. Assessment of disproportionate rates at which ethnic/racial minorities suffer and die from chronic and infectious diseases and injuries and statistical methods used to calculate these rates. Not open for credit to students who have completed course 40S. GE credit: SciEng, Div, Wrt | QL, SE, WE.—II.

**CHI 121. Chicana/o Community Mental Health (4)**

Lecture—3 hours; term paper. Prerequisite: course 10 or 20. Mental health needs, problems, and service utilization patterns of Chicanas/os and Latinas/os will be analyzed. An analysis of social service policy, and the economic context of mental health programs. Offered Alternate Years. GE credit: SocSci, Div, Wrt | ACGH, DD, OL, SS, WE.—Flores

**ASA 132. Health Issues Confronting Asian Americans and Pacific Islanders (4)**

Lecture/Discussion—4 hours. Health issues confronting Asian Americans and Pacific Islanders. (Same course as Public Health Sciences 132.) GE credit: SocSci | SS.

**EXT 101. Principles of Environmental Toxicology (4)**

Lecture—3 hours; Discussion—1 hour. Prerequisite: Chemistry 8B, 118B, or 128B and Biological Sciences 1A. Principles of toxicology with a focus on environmental, industrial, and natural chemicals. Topics include fate and effects of chemicals in organisms and the environment, air pollutants, insecticides, aquatic toxicology, endocrine disruptors, biomarkers and bioassays, and risk assessment. GE credit: SciEng | SE, SL.—I. (I.) Denison

**ETX 146. Exposure and Dose Assessment (3)**

Lecture—3 hours. Prerequisite: course 112A; course 135 recommended. The exposure component of risk assessment; specifically, the presence and/or formation of toxic substances in environmental media, their movement within and between contaminated media, and the contacts of human populations with those media. Offered in alternate years. GE credit: SciEng | QL, SE, SL, VL.—III. (III.) Bennett

**HIS 109B. Environmental Change, Disease and Public Health (4)**

Lecture/Discussion—3 hours; term paper. Analysis of environmental changes from pre-history to the present and their influence on disease distribution, virulence and public health; many of these changes have been driven by human action and transformations of pathogens have accelerated under globalization. GE credit: SciEng or SocSci, Div | SE or SS, SL.—I. (I.) Davis

**CRD 149. Community Development Perspectives on Environmental Justice (4)**

Lecture/Discussion—4 hours; extensive writing or discussion; project; term paper. Prerequisite: social science research methods course. Environmental justice social movements; inequitable distribution of pollution on low-income communities of color; histories, policies, and innovations associated environmental justice movements in the United States and around the world. Offered in alternate years. GE credit: SocSci, Div, Wrt | DD, OL, SS, VL, WE.—III. London

**COM 161. Health Communication (4)**

Lecture/Discussion—4 hours. Health communication theories and research, including a review of research on health literacy, social support and coping, doctor-patient interaction, health communication campaigns, and media influences on health. Application of new communication technologies in health promotion. GE credit: SocSci | SS.—III. (III.) Bell

**PSY 126. Health Psychology (4)**

Lecture—4 hours. Prerequisite: course 1, 41, 101. Pass One open to Psychology majors only. Psychological factors influencing health and illness. Topics include stress and coping, personality and health, symptom perception and reporting, heart disease, cancer, compliance, and health maintenance

and promotion. Not open for credit to students who have completed course 160.—II, III. (II, III.)  
Emmons, Moons

**ANT /STS 129. Health and Medicine in a Global Context (4)**

Lecture/discussion—3 hours; term paper. Prerequisite: course 2 or Science and Technology Studies 1. Recent works in medical anthropology and the science studies of medicine dealing with social and cultural aspects of global health issues such as AIDS, pandemics, clinical trials, cultural differences in illnesses, diabetes, organ trafficking, medical technologies, illness narratives, and others. (*Same course as Science and Technology Studies 129.*) GE credit: SocSci, Div, Wrt | SS, WC, WE.

**ECS 124. Theory and Practice of Bioinformatics (4)**

Lecture—3 hours; Laboratory—1 hour. Prerequisite: course 10 or 30 or Engineering 6; Statistics 12 or 13 or 32 or 100 or 131A or Mathematics 135A; Biological Science 1A or Molecular and Cellular Biology 10. Fundamental biological, mathematical and algorithmic models underlying bioinformatics and systems biology; sequence analysis, database search, genome annotation, clustering and classification, functional gene networks, regulatory network inference, phylogenetic trees, applications of common bioinformatics tools in molecular biology and genetics. GE credit: SciEng | SE.—III. (III.) Gusfield, Filkov, Tagkopoulos

**PMI 129Y. One Health: Human, Animal & Environment Interfaces (3)**

Lecture/discussion—3 hours; web electronic discussion. Class size limited to upper division undergraduate students in good standing with the school and who fulfill the course prerequisites below. Enrollment limited to 100 students/term. Introduction to fundamentals, challenges, and opportunities in One Health using local and global health case studies. Animal, human, and environmental health problems, along with tools and transdisciplinary approaches, will be introduced to foster innovative thinking that addresses complex issues. GE credit: SciEng or SocSci | OL, SE or SS, SL.—III. (III.) WA Smith

**\*SPH 92/192. Internship in Community Health Practice (1-12)**

Internship—3-36 hours. Prerequisite: upper division and graduate students; consent of instructor. The student, through fieldwork in a community health agency, learns to apply theory and concepts learned in the classroom. (P/NP grading only) *4 unit's maximum for minor. This course is to be arranged by the student and interested faculty.*

**\*SPH 198. Study in Community and International Health (1-5)**

Prerequisite: undergraduate standing and consent of instructor. Study and experience for undergraduate students in any number of areas in community and international health. (P/NP grading only.) *4 unit's maximum for minor. This course is to be arranged by the student and interested faculty.*

**\*SPH 198. Study in Community and International Health through the UC Davis Health Education and Promotion (HEP) Program**

1 unit per quarter for nonpaid volunteers; up to two units per quarter for paid student staff who work for HEP. Students need to contact Polly Paulson directly for course approval, pcpaulson@ucdavis.edu. (P/NP grading only)- I, II, III. (I, II, III.)

(Both paid and volunteer student positions with HEP require an application and interview. The selection process takes place Winter quarter for the paid student assistant positions and Spring quarter for unpaid volunteer positions for the following full academic year. Refer to

<http://healthcenter.ucdavis.edu/hep/student-positions.html> for more information and application deadlines. )

**\*SPH 199. Research in Community and International Health (1-5)**

Prerequisite: undergraduate standing; consent of instructor. Student will work with faculty member in areas of research interest, including but not limited to injury control, international health, health policy, occupational and environmental health, health promotion and wellness, women's health, and health demographics. (P/NP grading only) 4 unit's maximum for minor. This course is to be arranged by the student and interested faculty.

**SPH 190. Topics in Public Health (1)**

Seminar—1.5 hours. Seminar on key issues and current topics in public health. May be repeated up to four times for credit. (P/NP grading only.)—I, II, III, IV. (I, II, III, IV.) Kass, McCurdy, Koga, Schenker

**STA 13. Elementary Statistics (4)**

Lecture—3 hours; discussion—1 hour. Prerequisite: two years of high school algebra or the equivalent in college. Descriptive statistics; basic probability concepts; binomial, normal, Student's t, and chi-square distributions. Hypothesis testing and confidence intervals for one and two means and proportions. Regression. Not open for credit to students who have completed course 13V or higher. GE credit: SciEng | QL, SE.—I, II, III. (I, II, III.)

**STA 100. Applied Statistics for Biological Sciences (4)**

Lecture—3 hours; laboratory—1 hour. Prerequisite: Mathematics 16B or the equivalent. Descriptive statistics, probability, sampling distributions, estimation, hypothesis testing, contingency tables, ANOVA, regression; implementation of statistical methods using computer package. Only two units credit allowed to students who have taken course 13, 32 or 103. Not open for credit to students who have taken course 102. GE credit: SciEng | QL, SE.—I, II, III. (I, II, III.)

**STA 144. Sampling Theory of Surveys (4)**

Lecture—3 hours; discussion/laboratory—1 hour. Prerequisite: course 130B or 131B. Simple random, stratified random, cluster, and systematic sampling plans; mean, proportion, total, ratio, and regression estimators for these plans; sample survey design, absolute and relative error, sample size selection, strata construction; sampling and nonsampling sources of error. Offered in alternate years. GE credit: SciEng | QL, SE.—(I.)

**ECN 132. Health Economics (4)**

Lecture—3 hours; discussion—1 hour. Prerequisite: course 100 or consent of instructor. The health care market, emphasizing the role and use of economics. Individual demand, provision of services by doctors and hospitals, health insurance, managed care and competition, the role of government access to health care.—II. (II.) Cameron

**ECN 140. Econometrics (4)**

Lecture—3 hours; discussion—1 hours. Prerequisite: course 102, course 100 and course 101; Mathematics 16A and 16B or Mathematics 21A and 21B; Statistics 13, or any upper division Statistics course. Problems of observation, estimation and hypotheses testing in economics through the study of the theory and application of linear regression models. Critical evaluation of selected examples of empirical research. Exercises in applied economics. Not open for credit to students who have enrolled in or completed Agricultural and Resource Economics 106.—II. (II.)

**111AY. Introduction to Nutrition and Metabolism (3)**

Web virtual lecture—3 hours; lecture/discussion—1 hour. Prerequisite: Chemistry 8B; Neurology, Physiology, and Behavior 101 or the equivalent. Restricted to upper division or graduate level students only. Introduction to metabolism of protein, fat and carbohydrate: the biological role of vitamins and minerals; nutrient requirements during the life cycle; assessment of dietary intake and nutritional status. Not open for credit to students who have completed course 101 or 111AV. GE credit: SciEng | SE.—W. (W.)

**111B. Recommendations and Standards for Human Nutrition (2)**

Lecture—2 hours. Prerequisite: Chemistry 8B; Neurology, Physiology, and Behavior 101 or the equivalent, course 111AV or 111AY. Critical analysis of the development of nutritional recommendations for humans. Topics include history of modern recommendations, development of the Recommended Dietary Allowance (RDA) and other food guides; the Dietary Reference Intakes (DRI); administrative structure of regulatory agencies pertinent to nutrition recommendations; introduction to scientific methods used to determine the recommendations; food labeling laws; nutrition recommendations in other countries and cultures. Not open for credit to students who have completed course 111.—S. (S.) Zidenberg-Cherr

**9. If required research, or internships, is required, clearly describe the requirement(s) and how students will be expected to meet the requirement.**

Students are allowed to use internship and research experiences as elective credit. Below are the descriptions of each opportunity. Students can work with their minor advisor and or student affairs officers to identify opportunities. Receiving a passing grade for the credit is how the student will meet the requirement.

For the minor: SPH 192, 198 & 199 must be taken under the supervision of a Department of Public Health Sciences faculty member and a signed/completed contract must be on file in the advising center office before taking the class.

**\*SPH 92/192. Internship in Community Health Practice (1-12)**

Internship—3-36 hours. Prerequisite: upper division and graduate students; consent of instructor. The student, through fieldwork in a community health agency, learns to apply theory and concepts learned in the classroom. (P/NP grading only) *4 unit's maximum for minor. This course is to be arranged by the student and interested faculty.*

**\*SPH 198. Study in Community and International Health (1-5)**

Prerequisite: undergraduate standing and consent of instructor. Study and experience for undergraduate students in any number of areas in community and international health. (P/NP grading only.) *4 unit's maximum for minor. This course is to be arranged by the student and interested faculty.*

**\*SPH 198. Study in Community and International Health through the UC Davis Health Education and Promotion (HEP) Program**

1 unit per quarter for nonpaid volunteers; up to two units per quarter for paid student staff who work for HEP. Students need to contact Polly Paulson directly for course approval, pcpaulson@ucdavis.edu. (P/NP grading only)- I, II, III. (I, II, III.)

(Both paid and volunteer student positions with HEP require an application and interview. The selection process takes place Winter quarter for the paid student assistant positions and Spring quarter for unpaid volunteer positions for the following full academic year. Refer to <http://healthcenter.ucdavis.edu/hep/student-positions.html> for more information and application deadlines. )

**\*SPH 199. Research in Community and International Health (1-5)**

Prerequisite: undergraduate standing; consent of instructor. Student will work with faculty member in areas of research interest, including but not limited to injury control, international health, health policy, occupational and environmental health, health promotion and wellness, women's health, and health demographics. (P/NP grading only) *4 unit's maximum for minor. This course is to be arranged by the student and interested faculty.*

**10. Describe the administrative structure (list any committees and initial committee membership), include specification of the Academic Senate faculty (categories) that will vote on changes in the major - Not necessary for minors.**

**11. Describe the advising structure, explicitly describe advising and support staff and location (s) for staff.**

The Public Health Sciences minor will be administered by the Public Health Sciences Department in the Medical Sciences 1-C on the UC Davis campus. The Public Health Sciences minor will be supervised by Lorena Garcia, Director of Undergraduate Education, in the Department of Public Health Sciences. Students in the minor will be advised by Amber Carrere and Philip Meisch, Student Affairs Officers, Department of Public Health Sciences.

The **Advising Center** for the minor is located in the Department of Public Health Sciences, Medical Sciences 1C, Suite 181B. The Department of Public Health Sciences currently administers a Master in Public Health (MPH) degree. In addition, the department is planning to offer a PhD within the next year. Students applying to the minor should contact Amber Carrere or Philip Meisch, Student Affairs Officers, at [PHSInstAffairs@ucdavis.edu](mailto:PHSInstAffairs@ucdavis.edu).

**How will students apply for the Public Health Sciences minor?**

**Students will apply at the Public Health Sciences Advising Center. Application information will also be available online at the minor website at:**

<http://phs.ucdavis.edu/education/undergraduate.php>.

**Where can students get more information about the Public Health Sciences minor?**

For more information students can visit the minor website at:

<http://phs.ucdavis.edu/education/undergraduate.php>.

Students can also contact:

Amber Carrere, M.Ed.

Education Director  
 Department of Public Health Sciences - Medical Sciences 1C, Suite 181B  
 University of California, Davis  
 Davis, CA 95616  
 E-mail: [PHSInstAffairs@ucdavis.edu](mailto:PHSInstAffairs@ucdavis.edu)  
 Phone: (530) 754-4992 Fax: (530) 752-0903

Philip K. Meisch, MPA  
 Student Affairs Officer  
 Department of Public Health Sciences - Medical Sciences 1C  
 University of California, Davis  
 Davis, CA 95616  
 E-mail: [PHSInstAffairs@ucdavis.edu](mailto:PHSInstAffairs@ucdavis.edu)  
 Phone: (530) 754-9048 Fax: (530) 752-0903

**12. Describe the implementation. Provide enrollment estimates for the first 5 years and state if the basis for this estimate. Describe contingency planning if more or fewer students join during the first few years than anticipated.**

2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
50	100	200	300	400

**13. Specify the costs (resources required and projected) associated with implementation (by year) for the first five years. These costs, or “resources” broadly construed, may include but are not limited to: FTE, advising staff, teaching assistants, library acquisitions, computing, equipment, and facilities.**

The Department of Public Health Sciences has the resources to administer the minor program. Faculty are already in place for core course teaching, as well as, staffing for the advising center. The department plans to hire an additional student affairs officer by the 2017–2018 academic year to support the increase in enrollment for the minor program.

Public Health Sciences faculty participated in the development of the undergraduate minor. The PHS faculty included all of the instructors of record (IOR) for the required core courses (i.e., Drs. De Vogli, Garcia, McCurdy, Pocekay), as well as some of the electives (e.g. Bell, Bennett, Pollock) for the minor. This academic year (2015–2016), two of the courses (SPH 101 & SPH 102) had teaching assistants or readers, these included graduate students from the Masters in Public Health (MPH) program and the Graduate Group in Epidemiology (GGE).

The UCD library has been supportive of our students. The textbooks have been made available to students at both the Carlson Health Sciences Library and Shields Library. Through the Carlson Health Sciences Library, some of the required textbooks have been made available digitally to students enrolled in the SPH 105 & SPH 102 courses.

The Department is also recruiting 3 new faculty who will provide teaching for undergraduate and graduate teaching.

**14. Provide letters of support from academic units whose courses are used and faculty who are committed to providing instruction and mentoring in the program as appropriate.**

**Chair/director letters should include:**

- a. Course capacity to accommodate students including frequency of offerings and any resources necessary to expand capacity.
- b. General level of departmental support commitment.

**Faculty letters should include:**

- a. Comment on perceived value.
- b. Intent to participate and in what specific capacity (use of specific courses, development of new courses, etc.)

**15. Provide letter(s) of support from the relevant Dean(s) committing to any costs specified in (13).**

**Please refer to Appendix A.**

**16. Provide any MOUs documenting commitment with units providing or sharing faculty, staff, facilities, etc.**

***Not applicable.***

**17. Specify if the major and associated program will be subject to regular review by an outside agency, and include the agency (e.g., ABET, ACEND). -not necessary for minors.**

**18. Specify the members of the Committee in Charge.**

Brad Pollock, PhD, MPH,	Chair Department of Public Health Sciences
Lorena Garcia, MPH, DrPH	Director, Undergraduate Education, Department of Public Health Sciences
Diana Cassady, DrPH	Associate Director, Master of Public Health Program
Stephen McCurdy, MD, MPH	Director, Master of Public Health Program
Amber Carrere, Med	Student Affairs Officer, Department of Public Health Sciences
Philip Meisch, MPA	Student Affairs Officer, Department of Public Health Sciences

**19. Specify Affiliated Faculty that will participate in curriculum delivery.**

Faculty Department of Public Health Sciences

Anderson, Nick	Professor, PhD
Bang, Heejung	Professor, PhD
Beaumont, James	Emeritus Professor, PhD, MSPH
Beckett, Laurel	Biostatistics Division Chief, Professor, PhD
Bell, Robert	Professor, PhD
Bennett, Deborah	Environmental and Occupational Health Division Chief, Professor, PhD
Buckpitt, Alan R.	Emeritus Professor, PhD
Cassady, Diana	Professor, DrPH

Cress, Rosemary  
De Vogli, Roberto  
Garcia, Lorena  
Gibson, David Ross  
Gold, Ellen B.  
Harvey, Danielle  
Hertz-Picciotto, Irva

Associate Professor, DrPH  
Associate Professor, PhD, MPH  
Associate Professor, DrPH, MPH  
Emeritus Professor, PhD  
Emeritus Professor, PhD  
Associate Professor, PhD  
Epidemiology Division Chief Professor, PhD

Hirsch, Calvin  
Hoch, Jeffrey  
Iosif, Ana-Maria  
Kass, Philip H.  
Keegan, Theresa  
Kim, Kyoungmi  
Koga, Patrick Marius  
Leigh, J. Paul  
Li, Chin-Shang  
McCurdy, Stephen A.  
Miglioretti, Diana L  
Pollock, Brad  
Qi, LiHong  
Rocke, David  
Rozance, Christine  
Schenker, Marc B.  
Schmidt, Rebecca J.  
Stewart, Susan L.  
Yoo, Byung Kwang (BK)

Professor of Clinical Internal Medicine, MD  
Professor, PhD  
Associate Professor, PhD  
Professor, DVM, MPVM, PhD  
Associate Professor, PhD, MS  
Associate Professor, PhD  
Assistant Professor, MD, MPH  
Professor, PhD  
Professor, PhD  
Professor, MD, MPH  
Dean's Professor in Biostatistics, PhD  
Department Chair, Professor, PhD, MPH  
Associate Professor, PhD  
Distinguished Professor, PhD  
Emeritus Professor, MD  
Distinguished Professor, MD, MPH  
Assistant Professor, PhD  
Associate Professor, PhD  
Associate Professor, MD, PhD

Backman, Desiree  
Belafsky, Sheri  
Belcourt, Roger M.  
Boucher, Faith  
Bronshvag, Michael M.  
Burton, Richard  
Conroy, Shannon  
Ferguson, Thomas J.  
Fields, Gary  
Griffin, Erin  
Kaufman, Farla  
Lake, Stephanie  
Louchakova-Schwartz, Olga

Volunteer Clinical Faculty, Dept. of Public Health Sciences  
Volunteer Clinical Faculty, Dept. of Public Health Sciences

Lyman, Donald O.	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Messam, Locksley	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Morris, Cyllene	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Nelson, Eric	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Nunez de Ybarra, Jessica	Volunteer Clinical Faculty, Dept. of Public Health Sciences
O'Malley, Michael A.	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Paciotti, Brian	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Parikh-Patel, Arti	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Paulson, Polly	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Pecoraro, Maria Lucia Campos de	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Pereira de Oliveira, Rosane	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Pocckay, Dennis	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Ramos, Marisa	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Sun, Richard	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Thiel de Bocanegra, Heike	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Wiggins, Patricia	Volunteer Clinical Faculty, Dept. of Public Health Sciences
Wu, Helen	Volunteer Clinical Faculty, Dept. of Public Health Sciences

**Appendix A**

LETTERS OF SUPPORT



FACULTY SENATE OFFICE  
UC DAVIS SCHOOL OF MEDICINE  
Phone: 916-703-9020  
Fax: 916-703-9019

2921 STOCKTON BLVD,  
CTSC BLDG, ROOM 1424  
SACRAMENTO, CA 95817

November 5, 2015

Andre Knoesen  
Gina Anderson  
Davis Division Academic Senate

Subject: Response Letter to Proposal for a Minor in Public Health Sciences

Dear Dr. Knoesen and Ms. Anderson:

The Faculty Executive Committee met with Brad Pollock, Chair of Public Health Sciences, Dr. Lorena Garcia, and Amber Carrere. After a brief discussion, the FEC voted and unanimously endorsed the proposal for a minor in Public Health Sciences.

Respectfully,

*Martha E. O'Donnell*

Martha E. O'Donnell, Ph.D.  
Chair, Faculty Executive Committee



DEPARTMENT OF PUBLIC HEALTH SCIENCES  
UNIVERSITY OF CALIFORNIA  
ONE SHIELDS AVENUE  
DAVIS, CALIFORNIA 95616-8638  
(530) 752-2793  
FAX: (530) 752-3239  
<http://www.phs.ucdavis.edu/>

Chair of the Academic Senate  
Professor Andre Knoesen  
[academic senate chair@ucdavis.edu](mailto:academic senate chair@ucdavis.edu)

Dear Professor Knoesen:

I have attached a proposal for a minor in Public Health for your review and approval. The Department of Public Health Sciences developed the new minor in response to tremendous student demand for coursework in public health and the UC Office of the President's recommendation to expand and diversify the pipeline to graduate training in public health.

Our Department has a deep commitment to graduate education in both the School of Medicine and the Graduate Group in Epidemiology. But we have offered SPH 101: Perspectives in Public Health for approximately 20 years in order to expose undergraduates to an exciting and rewarding career path in disease prevention and health promotion. We now teach SPH 101 twice each year in response to student demand, and enrollment continues to grow. A new undergraduate course offered in Fall 2014, SPH 104: Globalization and Health, was very popular with students, as we expect two new classes to be (SPH 102: Health Disparities and SPH 102: Introduction to Epidemiology and Biostatistics). The proposal for a Public Health Minor requires 20 units of coursework, with 10-11 required units taught by our department and 10 units of electives from our department and across the campus.

The Department of Public Health Sciences' faculty support this proposal, with 9 of 15 Academic Senate members and 3 of 8 Academic Federation members and 2 out of without salary voting in favor of the Public Health Minor. I have included a strong letter of support from Julie Freishlag, MD, MPH, the Dean of the School of Medicine.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Pollock".

Brad H. Pollock, M.P.H., Ph.D.  
Professor and Chairman  
Arline Miller Rolkin Chair in Public Health Sciences  
Department of Public Health Sciences  
School of Medicine  
E-mail: [bpollock@ucdavis.edu](mailto:bpollock@ucdavis.edu)

UNIVERSITY OF CALIFORNIA, DAVIS

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SANTA BARBARA • SANTA CRUZ

COLLEGE OF AGRICULTURAL AND  
ENVIRONMENTAL SCIENCES  
AGRICULTURAL EXPERIMENT STATION  
DEPARTMENT OF PLANT PATHOLOGY  
ONE SHIELDS AVE.  
DAVIS, CALIFORNIA, 95616-8680

TELEPHONE: (530) 754-0300  
FAX: (530) 752-5674  
dmrizzo@ucdavis.edu

30 September 2016

Dr. Lorena Garcia  
Public Health Sciences  
UC Davis

Dear Dr. Garcia,

Thank you for the opportunity to review your proposal for a new minor in *Public Health Sciences* at UC Davis. As the director of the *Global Disease Biology* (GDB) major, I think your proposed minor will be an excellent addition to undergraduate education at UC Davis. I see this minor as a compliment to the GDB major. GDB takes a very broad One Health approach to education that includes humans, animals, plants and the environment. Many of our GDB majors are very interested in public health. In some cases, students see public health as their career path. In other cases, students see education in public health as a compliment to their career path in medicine, veterinary medicine or research. From my perspective, the *Public Health Sciences* minor will allow these students to specialize within the broader context of *Global Disease Biology*. My guess is students in other majors (e.g., biological sciences, psychology, or NPB) will feel the same way. In addition, the courses you are develop for the minor will serve as excellent restricted electives for the GDB major as well as other majors on campus.

Over all, I see a *Public Health Sciences* minor as a plus for the campus. I definitely support the minor.

Sincerely,

A handwritten signature in blue ink that reads "David Rizzo".

David Rizzo  
Professor and Chair of Plant Pathology  
Director, Global Disease Biology major  
Director, Science and Society Program



COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES  
AGRICULTURAL EXPERIMENT STATION  
COOPERATIVE EXTENSION  
DEPARTMENT OF NUTRITION  
TELEPHONE: (530) 752-4645  
FAX: (530) 752-8966

ONE SHIELDS AVENUE  
DAVIS, CALIFORNIA 95616-8669

October 26, 2016

To whom it may concern,

I am pleased to write this letter in support of the proposal for a new Minor in Public Health Sciences, from the Department of Public Health Sciences, School of Medicine. This minor will serve to increase student awareness of public health issues and an understanding of the knowledge and skills needed to continue on to graduate study in the field of public health. The student interest and demand for the topic on campus is evident through the student survey data, enrollment in the Global health major and growing enrollment in our Nutritional Epidemiology course.

The proposed minor will not duplicate the course offerings of our Nutrition Science major, Public Health option. It has the potential to enhance our Public Health option by providing our students with additional elective coursework choices. The focus of the proposed minor represents a broad application of public health topics with a health care system and community focus that is unique to the Public Health Sciences Department.

In summary, the department of Nutrition supports the Public Health minor proposed by the Department of Public Health Sciences.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Francene M. Steinberg".

Francene M. Steinberg PhD, RD  
Professor and Chair, Department of Nutrition  
3135 B Meyer Hall Ph: (530) 752-0160  
Email: [fmsteinberg@ucdavis.edu](mailto:fmsteinberg@ucdavis.edu)

**Appendix B**

PUBLIC HEALTH SCIENCES MINOR SURVEY RESULTS

# **APPENDIX B**

## **Survey Results: Undergraduate Minor Proposal at UC Davis**

Tuesday, June 14, 2016

# 65

**Total Responses**

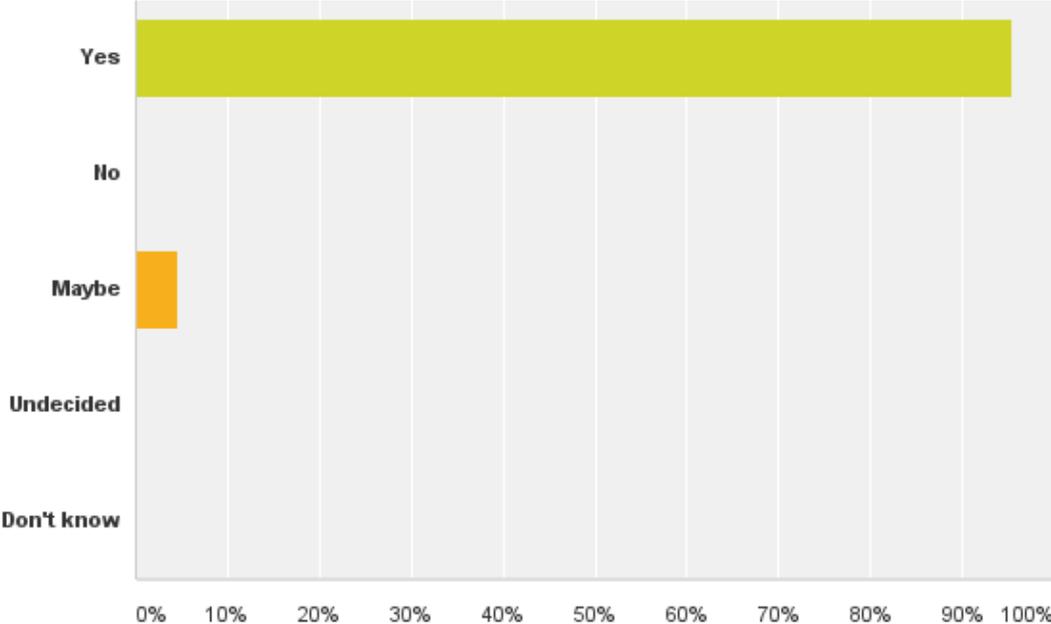
Date Created: Friday, January 15, 2016

Complete Responses: 65

---

# Q1: Are you interested in public health?

Answered: 65 Skipped: 0



# Q1: Are you interested in public health?

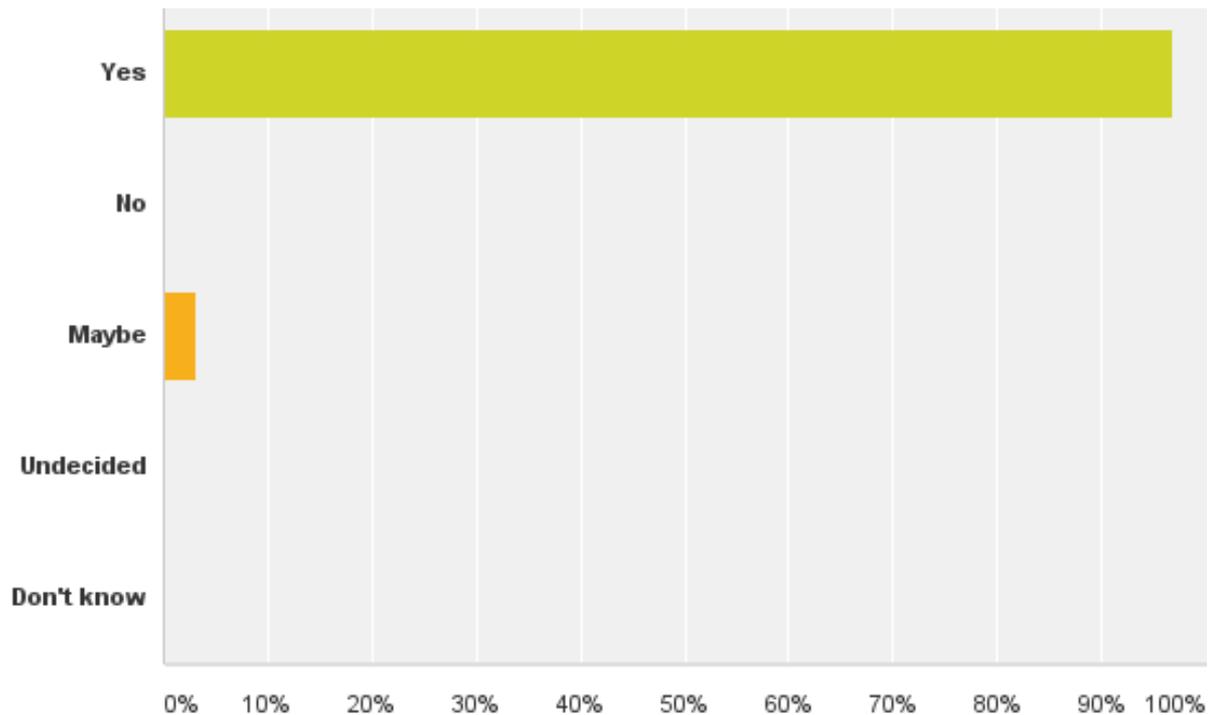
---

Answered: 65 Skipped: 0

Answer Choices	Responses
Yes	95.38% 62
No	0.00% 0
Maybe	4.62% 3
Undecided	0.00% 0
Don't know	0.00% 0
<b>Total</b>	<b>65</b>

## Q2: Are you interested in learning more about the health of people and the communities where they live, work and play?

Answered: 64 Skipped: 1



## Q2: Are you interested in learning more about the health of people and the communities where they live, work and play?

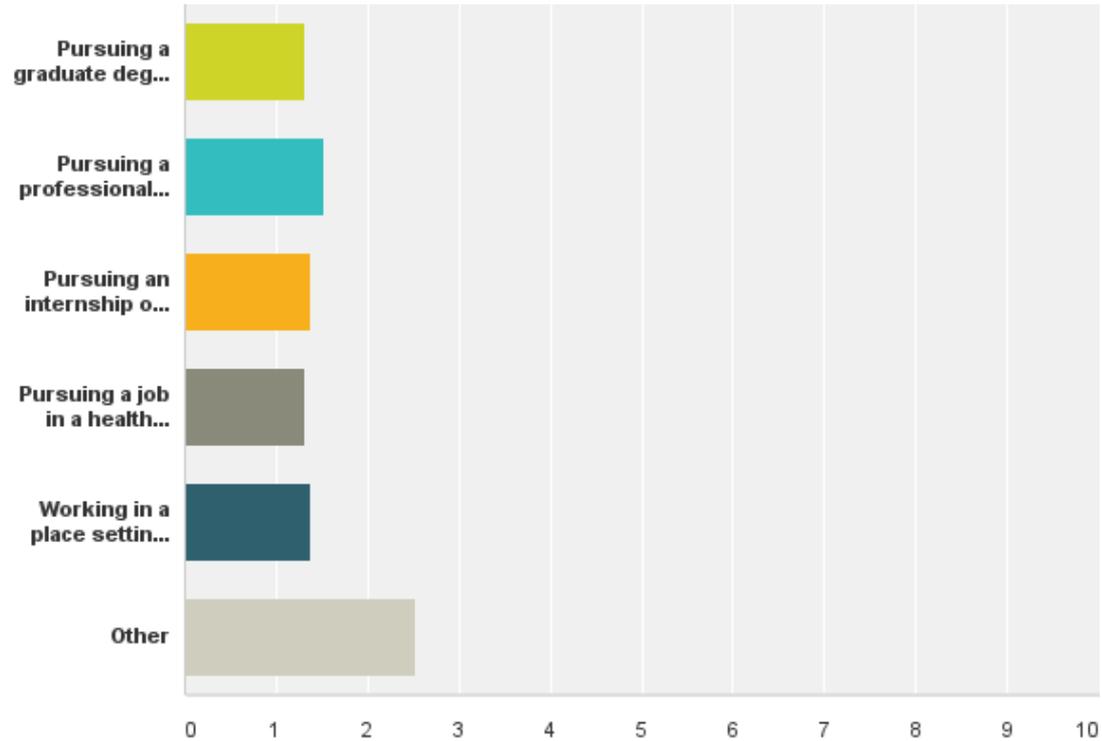
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Answered: 64 Skipped: 1

Answer Choices	Responses
Yes	96.88% 62
No	0.00% 0
Maybe	3.13% 2
Undecided	0.00% 0
Don't know	0.00% 0
<b>Total</b>	<b>64</b>

### Q3: After graduation from UC Davis have you thought about:

Answered: 65 Skipped: 0



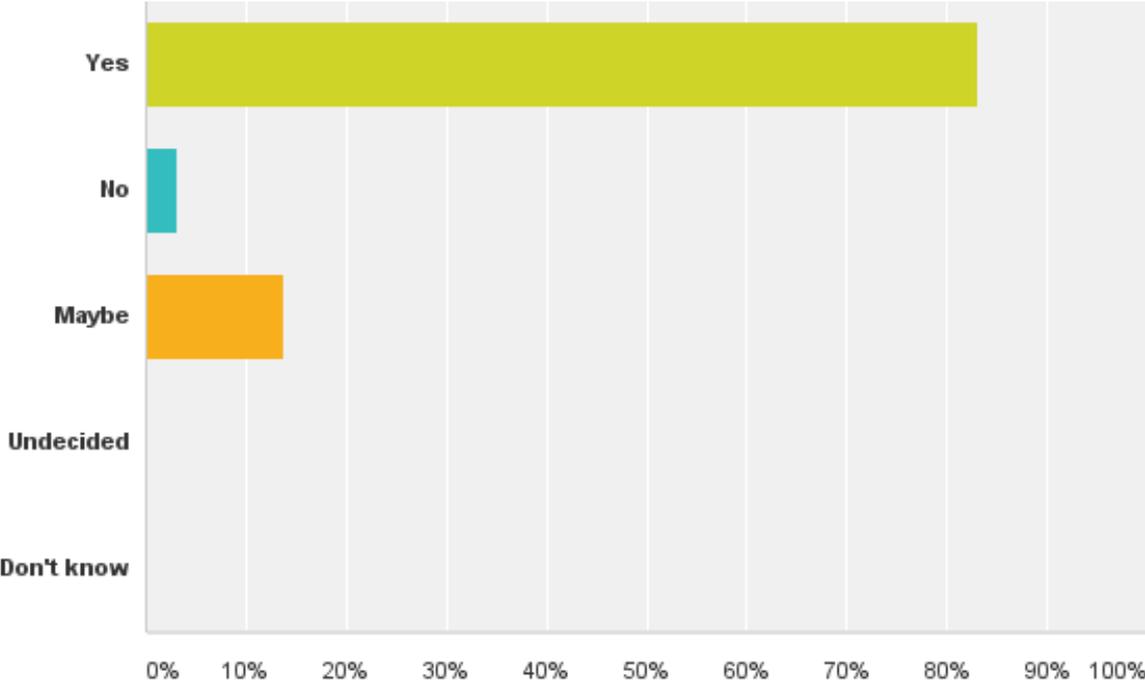
### Q3: After graduation from UC Davis have you thought about:

Answered: 65 Skipped: 0

	Often	Sometimes	Not Really	Not Applicable	Total	Weighted Average
Pursuing a graduate degree in public health such as a Masters or Doctoral degree?	<b>73.85%</b> 48	<b>21.54%</b> 14	<b>4.62%</b> 3	<b>0.00%</b> 0	65	1.31
Pursuing a professional degree in a health related field such as medicine, nursing, pharmacy, dentistry?	<b>67.69%</b> 44	<b>13.85%</b> 9	<b>16.92%</b> 11	<b>1.54%</b> 1	65	1.52
Pursuing an internship or fellowship in a health related program such the CDC or NIH (i.e. STEP UP)?	<b>72.31%</b> 47	<b>16.92%</b> 11	<b>10.77%</b> 7	<b>0.00%</b> 0	65	1.38
Pursuing a job in a health related field such as a private (Sutter, Kaiser) or public agencies (community based clinics, non-profits)?	<b>76.92%</b> 50	<b>15.38%</b> 10	<b>6.15%</b> 4	<b>1.54%</b> 1	65	1.32
Working in a place setting that addresses and/or advocates for public health issues (state agencies)?	<b>71.88%</b> 46	<b>20.31%</b> 13	<b>6.25%</b> 4	<b>1.56%</b> 1	64	1.38
Other	<b>36.84%</b> 7	<b>15.79%</b> 3	<b>5.26%</b> 1	<b>42.11%</b> 8	19	2.53

# Q4: If a public health minor were made available at UC Davis to students like you, would you enroll in it?

Answered: 65 Skipped: 0



## Q4: If a public health minor were made available at UC Davis to students like you, would you enroll in it?

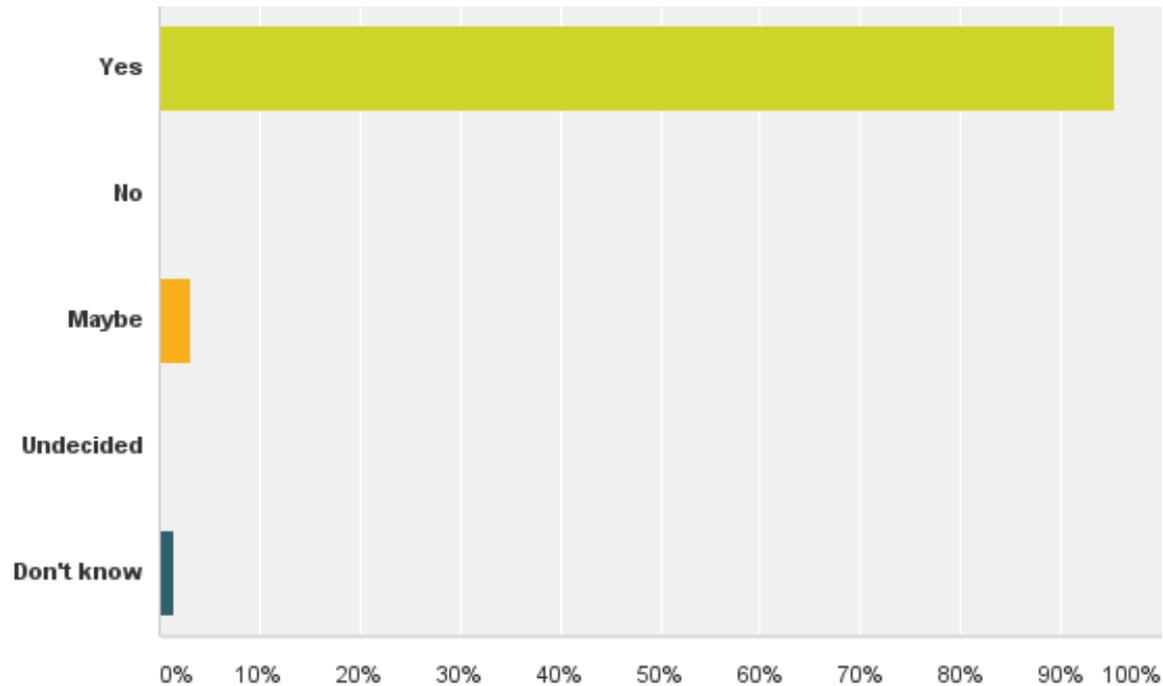
---

Answered: 65 Skipped: 0

Answer Choices	Responses	
Yes	83.08%	54
No	3.08%	2
Maybe	13.85%	9
Undecided	0.00%	0
Don't know	0.00%	0
<b>Total</b>		<b>65</b>

## Q5: Do you think course work and/or training in public health would help you to pursue your future career and/or academic goals?

Answered: 65 Skipped: 0



## Q5: Do you think course work and/or training in public health would help you to pursue your future career and/or academic goals?

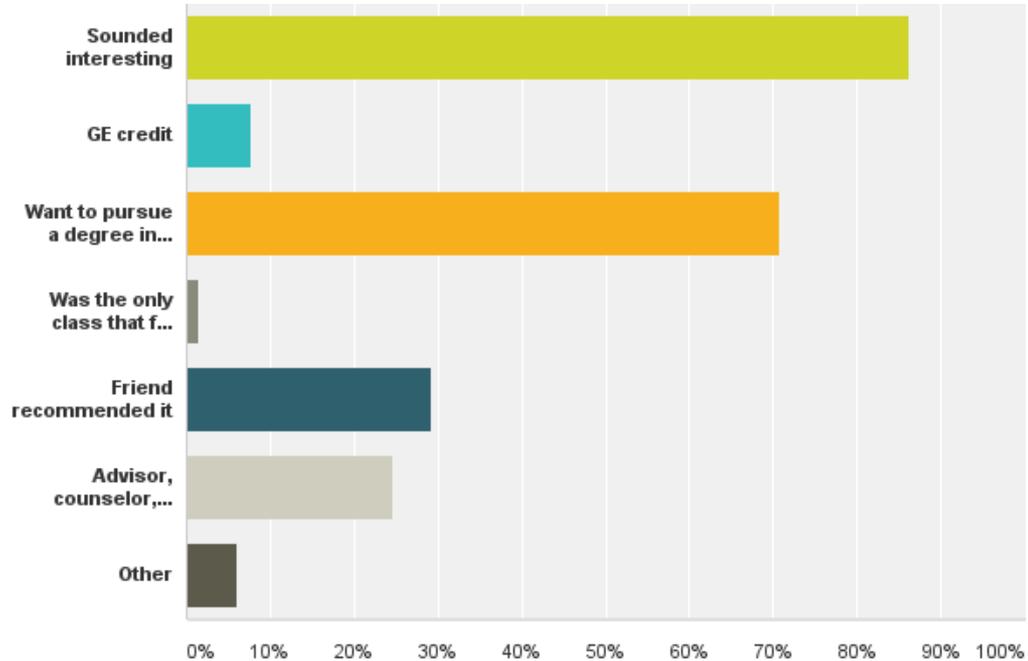
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Answered: 65 Skipped: 0

Answer Choices	Responses	
Yes	95.38%	62
No	0.00%	0
Maybe	3.08%	2
Undecided	0.00%	0
Don't know	1.54%	1
<b>Total</b>		<b>65</b>

## Q6: What made you decide to enroll in this course? Check all that apply.

Answered: 65 Skipped: 0



## Q6: What made you decide to enroll in this course? Check all that apply.

Answered: 65 Skipped: 0

Answer Choices	Responses	
Sounded interesting	86.15%	56
GE credit	7.69%	5
Want to pursue a degree in medicine, nursing, and/or dentistry,	70.77%	46
Was the only class that fit my schedule	1.54%	1
Friend recommended it	29.23%	19
Advisor , counselor , faculty member recommended it	24.62%	16
Other	6.15%	4
<b>Total Respondents: 65</b>		

## References

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December 9, 2015

Martha O'Donnell, Chair  
Faculty Executive Committee  
UC Davis School of Medicine

Re: Proposal for a Minor in Public Health Sciences

The Undergraduate Council (UGC) has reviewed and discussed the proposal for a minor in Public Health Sciences. The UGC recognizes the significance and value of the minor, and would expect that it will eventually be a well-subscribed minor. The cover letter from Dr. Freischlag indicates that the Department of Public Sciences has sufficient resources to host the minor, and this is good news, but the minor electives specified are largely from other units and it was not clear how they will be affected by the minor or if they were consulted about the proposed curriculum. This last point relates to concerns expressed regarding how the minor will impact courses outside of SPH that are proposed to serve as required minor electives. Evidence of communication with those units on course availability was not included in the proposal and should be. This is important because the minor will very likely influence the demand for, and availability of, courses in other units.

To aid the proposing unit in addressing UGC questions and concerns, we request that the proposal be revised to include information as specified in the attached draft guidelines for new minors. The UGC drafted the guidelines, so they should help provide insight on UGC expectations, and so expedite the review of a revised proposal. The information requested includes letters from other affected units, for example those offering classes that will be used by the minor or other programs that relate to the proposed minor (e.g., Nutrition, Statistics, Economics, Global Disease Biology). Note however that these are draft guidelines and have not transited the complete campus approval process. They should however, provide a very solid basis for a revision of the proposal. I hope that you will find the guidelines helpful.

These comments are respectfully submitted on behalf of the UGC.



Edward Caswell-Chen, Chair  
Davis Division Academic Senate Undergraduate Council

Enclosure

c: André Knoesen, Chair, Davis Division Academic Senate  
Gina Anderson, Executive Director, Davis Division Academic Senate  
Carolyn Thomas, Vice Provost and Dean for Undergraduate Education  
Julie Ann Freishlag, Dean, UC Davis School of Medicine